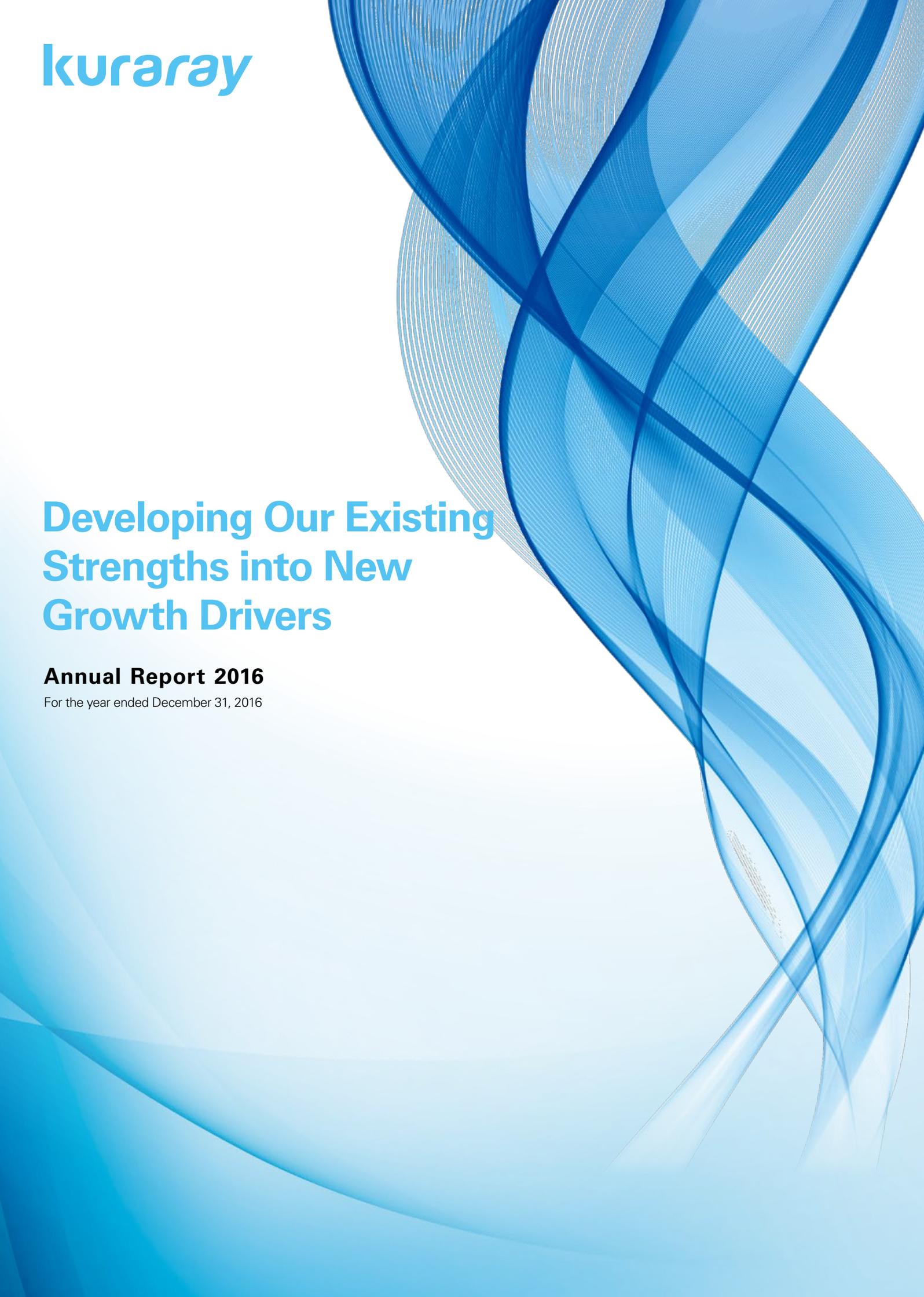




kuraray



**Developing Our Existing
Strengths into New
Growth Drivers**

Annual Report 2016

For the year ended December 31, 2016

Kuraray

Kuraray was established in 1926 to commercialize the chemical fiber rayon, which was state-of-the-art at the time. As a pioneer in Japan's emerging synthetic fiber production industry, the Company moved to the industry forefront in 1950 with the accomplishment of commercial production of polyvinyl alcohol (PVA) fiber *KURALON*.

Over the last half century, Kuraray's technological expertise has developed numerous distinctive products that have expanded the Company's presence in markets worldwide. In particular, several of our current products command the top share in the global market, including PVA resin, a first in the world product commercialized by Kuraray offering outstanding adhesive properties and water solubility; optical-use PVA film, an indispensable element in liquid crystal displays (LCDs); *EVAL* resin, a high gas barrier resin used for food packaging and fuel tanks; heat-resistant polyamide resin *GENESTAR* and man-made leather *CLARINO*.

Corporate Statements

Our Mission	<p>We are committed to developing new fields of business using pioneering technology that improves the environment and enhances the quality of life throughout the world.</p> <p>For people and the planet – to achieve what no one else can.</p>		
Our Values	<table><tbody><tr><td>(Philosophy)<ul style="list-style-type: none">• Respect for individuals• Close cooperation to attain shared goals• Constant creation of new value</td><td>(Guiding Principles)<ul style="list-style-type: none">• Safety is the cornerstone of everything we do• Customers' needs are our top priority• We act on ideas in the workplace</td></tr></tbody></table>	(Philosophy) <ul style="list-style-type: none">• Respect for individuals• Close cooperation to attain shared goals• Constant creation of new value	(Guiding Principles) <ul style="list-style-type: none">• Safety is the cornerstone of everything we do• Customers' needs are our top priority• We act on ideas in the workplace
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Our Commitment	<ul style="list-style-type: none">• We will constantly develop and provide safe, high-quality products and services.• We will maintain a sound relationship with society through good communication.• We will strive to preserve and improve the global environment, and to secure safety and health in all our workplaces.• We will value all members of the Kuraray community and respect their rights.• We will always conduct businesses in a free, fair and transparent manner.• We will honor all intellectual property and secure data and information in a proper manner.		

To Our Shareholders and Investors



I would like to express my sincere gratitude to all our shareholders and investors.

In fiscal 2016 (January 1, 2016 to December 31, 2016), a gradual economic recovery was apparent in Japan due to brisk exports resulting from the depreciation of the yen at the end of the period. Business conditions in the United States were favorable, backed by positive employment conditions in addition to personal consumption. In Europe, the economy continued to gradually improve. Although the United Kingdom's decision to leave the European Union cast a shadow on Europe's outlook, there has currently been no major impact. Meanwhile, the deceleration of China's economy was halted by the government's successful measures to stimulate consumption. An economic slowdown continued in emerging countries.

Under these circumstances, the Kuraray Group has been successively implementing the business strategies outlined in GS-STEP, its medium-term management plan for fiscal 2015 through fiscal 2017, to realize "a high-profit specialty chemical company with a global presence."

Regarding results of operations for fiscal 2016, net sales decreased ¥36,529 million, or 7.0%, compared with the previous fiscal year to ¥485,192 million; operating income increased ¥1,749 million, or 2.6%, to ¥67,827 million; ordinary income increased ¥1,645 million, or 2.5%, to ¥66,181 million; and net income attributable to owners of the parent increased ¥4,650 million, or 13.0%, to ¥40,400 million.

In fiscal 2017, business conditions in the United States are forecast to remain generally brisk, and in Japan and Europe, a moderate recovery is expected to continue. In China, a continuation of the temporary calm is expected with the halt of the deceleration of the economy. In emerging countries, there are concerns about a continued slowdown in growth. However, the operating environment is becoming increasingly unclear, as the real economic impact of factors such as the policies of the new U.S. president, changes in the relationship

of the United Kingdom with European countries due to its withdrawal from the European Union, and national elections scheduled in major European countries remains difficult to predict. Moreover, the Company's results benefited from cost reductions made possible by declines in raw material and fuel prices up to 2016, but in fiscal 2017 prices of raw materials and fuel are expected to rise, with an accompanying increase in manufacturing costs. On the other hand, because a time lag arises in adjusting selling prices of products, there are concerns about continuing decreases in selling prices of some products in fiscal 2017.

Under the first two years of the GS-STEP medium-term management plan, Kuraray has been steadily implementing concrete measures for the five main management strategies put forth in the plan (deepening of core businesses, technological innovation, next-generation growth model, optimum allocation of management resources, and contribution to the environment). In fiscal 2017, which is the final year of GS-STEP, the Company will steadily implement the remaining measures in its main management strategies, and will work to achieve high profit and build a business foundation for further growth.

Based on this outlook, in fiscal 2017 the Kuraray Group forecasts net sales of ¥530.0 billion, operating income of ¥70.0 billion, ordinary income of ¥68.0 billion, and net income attributable to owners of the parent of ¥42.0 billion.

The distribution of profits to shareholders is one of Kuraray's top management priorities, and during GS-STEP the Company has a basic policy of increasing distribution of profits through continuous improvement in business results. Kuraray has set a total return ratio of 35% or more relative to net income attributable to owners of the parent and annual dividends per share of ¥36 or higher. Kuraray paid a year-end dividend of ¥21 per share for fiscal 2016, an increase of ¥1 per share from the initial forecast. As a result, total annual dividends for fiscal 2016, including the interim dividend, were ¥41 per share, for a dividend payout ratio of 35.7%.

For fiscal 2017, Kuraray plans annual dividends of ¥42 per share (payout ratio of 35.2%), assuming a forecast for net income attributable to owners of the parent of ¥42.0 billion.

The Kuraray Group requests your continued understanding and support.

A handwritten signature in black ink that reads "Masaaki Ito". The signature is fluid and cursive, with the last name "Ito" being particularly prominent.

Masaaki Ito

Representative Director and President

Our Business Portfolio

Kuraray is using its superior technology platform to expand its businesses in the fields of high-performance fibers, resins and chemicals. The Company currently operates in the six segments of Vinyl Acetate, Isoprene, Functional Materials, Fibers and Textiles, Trading, and Others, with a wide-ranging lineup of products.

Vinyl Acetate

Share **40%**¹ **No.1** in the world



KURARAY POVAL, ELVANOL
(PVA resin)

Share **80%** **No.1** in the world²



PVA film

No.1 in the world²



Share **65%** **No.1** in the world



EVAL resin (EVOH resin) /
EVAL film (EVOH film)



TROSIFOL, BUTACITE (PVB film)



PLANTIC³

Isoprene

Share **100%** **No.1** in the world⁴



GENESTAR
(Heat-resistant polyamide resin)



SEPTON, HYBRAR
(Thermoplastic elastomer)



Isoprene chemicals



Liquid rubber



KURARITY
(Acrylic thermoplastic elastomer)

1. Excluding China 2. The number-one PVA film in the world for optical applications and for single-use packages for detergents.
3. Kuraray acquired Plantic Technologies Limited in 2015. 4. The world's only industrialized PA9T resin.

Functional Materials

Share **25%** **No.1** in the world



CLARINO (Man-made leather)

No.1 in Japan



Dental materials



Methacrylic resin

Fibers and Textiles

Share **100%** **No.1** in the world⁵



KURALON (PVA fiber)

No.1 in Japan



MAGIC TAPE
(Hook and loop fastener)

No.1 in the world⁶



VECTRAN
(Polyarylate fiber)



KURAFLEX, FELIBENDY
(Non-woven fabric)

Trading, Others

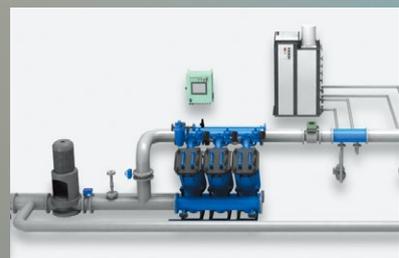
No.1 in Japan



KURARAY COAL (Activated carbon)



Polyester filament



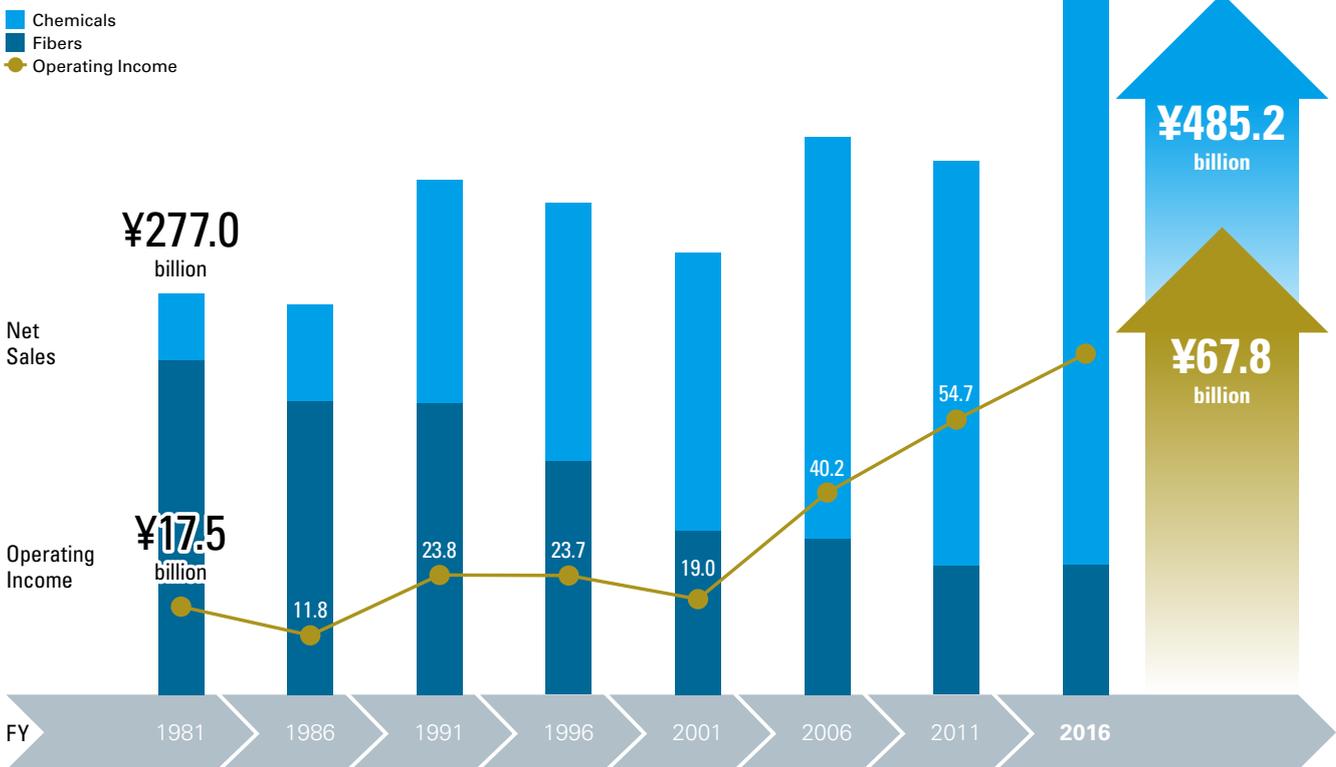
Environmental business

5. Excluding China 6. The world's only industrialized polyarylate fiber.

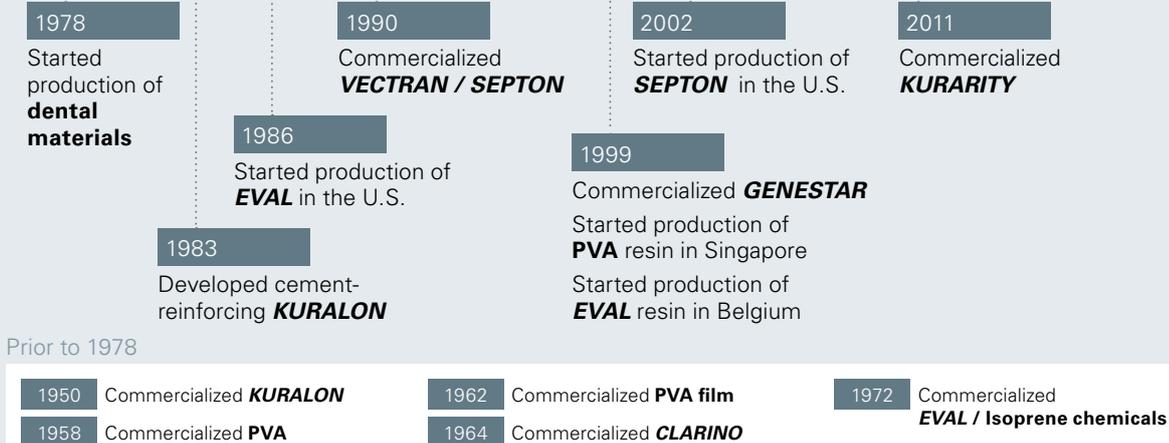
Our Progress

From its establishment in 1926, Kuraray's principal business was the manufacture and sale of synthetic fibers. By accelerating the intensive development of its resins and chemicals businesses since the 1980s, Kuraray has become a global specialty chemical company, with resins and chemicals accounting for approximately 80% of net sales.

Trends in Net Sales and Operating Income



History of Commercialization of Kuraray's Proprietary Technologies



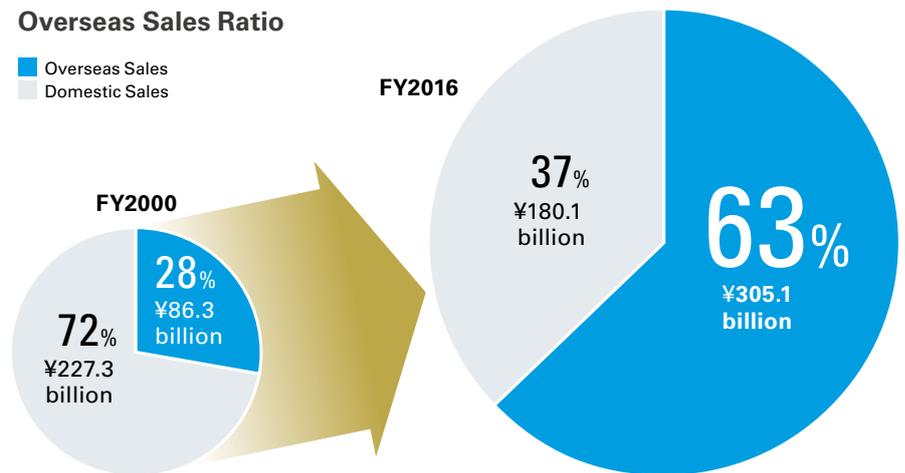
Our Global Presence

Kuraray is cultivating a lineup of world-class products with a large market share. At the same time, the Company is expanding its global network with local production and sales in response to the growth of markets worldwide by developing overseas businesses that make full use of its proprietary technologies.

Centered on a product lineup developed using its proprietary technologies, Kuraray works to uncover new needs worldwide and further expand its market share. Sales to date have focused primarily on developed nations, but today we are committed to increasing sales in emerging markets such as the BRICs, where further demand growth is forecast.

Overseas Sales Ratio

■ Overseas Sales
■ Domestic Sales

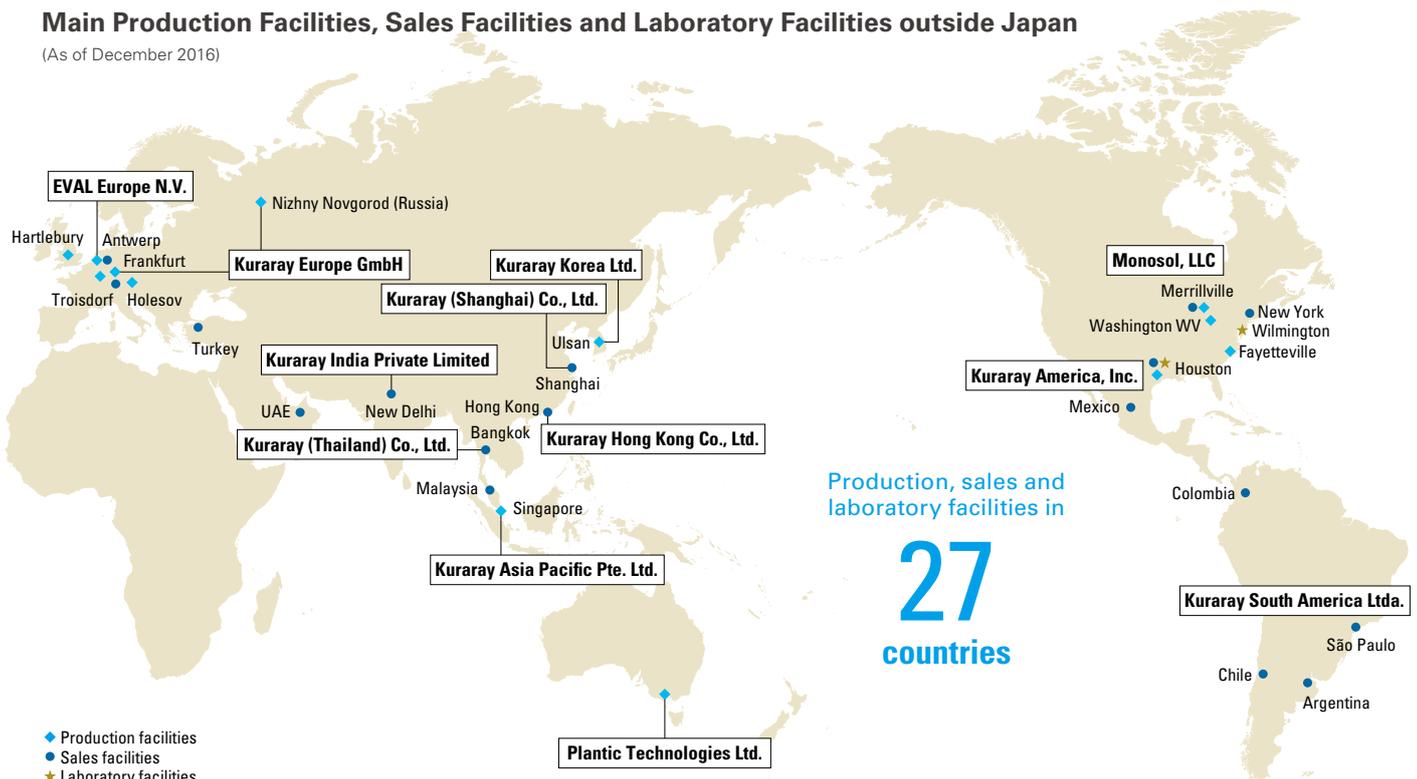


Kuraray's Global Network

Since establishing a foothold in the United States with the launch of local production of *EVAL* at a U.S. joint venture in 1986, Kuraray has worked to localize production and sales in response to growing markets around the world. We also work to strengthen our international competitiveness by enhancing our sales offices and other initiatives in unexplored fields in countries and regions where we operate.

Main Production Facilities, Sales Facilities and Laboratory Facilities outside Japan

(As of December 2016)



Consolidated Financial Highlights

Kuraray Co., Ltd. and its Consolidated Subsidiaries

	Millions of yen					Millions of U.S. dollars (Note 4)	Millions of Euro (Note 5)
	FY2016 (Note 1)	FY2015 (Note 1)	FY2014 (Adjusted) (Jan. - Dec. 2014) (Note 2)	FY2013	FY2012	FY2016	FY2016
Net sales	¥485,192	¥521,721	¥484,969	¥413,485	¥369,431	\$4,183	€3,945
Cost of sales.....	317,748	355,137	343,168	286,179	249,485	2,739	2,583
Selling, general and administrative expenses	99,616	100,506	66,687	77,760	70,748	859	810
Operating income	67,827	66,077	51,382	49,545	49,197	585	551
Net income	40,400	35,749	27,454	29,390	28,798	348	328
Capital expenditures	¥ 53,608	¥ 45,014	¥ 47,191	¥ 59,740	¥ 45,519	\$ 462	€ 436
Depreciation and amortization	41,555	44,102	42,006	34,972	30,952	358	338
Gross cash flow	81,955	79,851	69,460	64,362	59,750	707	666
Total research and development expenses	19,830	19,132	18,066	17,103	16,431	171	161
Total assets.....	¥725,433	¥701,770	¥691,538	¥634,252	¥587,254	\$6,254	€5,898
Total current assets	324,974	296,486	269,200	302,402	257,212	2,802	2,642
Total tangible fixed assets	271,827	262,019	262,388	222,219	181,274	2,343	2,210
Total current liabilities	96,136	95,450	109,936	89,145	111,449	829	782
Total noncurrent liabilities	108,318	102,729	99,775	92,647	74,279	934	881
Total net assets.....	520,978	503,589	481,826	452,459	401,307	4,491	4,236
Segment information (Note 6)							
Vinyl Acetate							
Net sales.....	¥253,175	¥274,746	¥237,615	¥179,261	¥155,163	\$2,183	€2,058
Operating income	58,517	55,740	46,183	46,658	48,877	504	476
Isoprene							
Net sales.....	51,083	54,985	55,712	53,027	44,817	440	415
Operating income	6,934	6,922	6,405	5,471	3,870	60	56
Functional Materials							
Net sales.....	52,246	56,879	53,809	48,552	45,144	450	425
Operating income	4,631	5,564	1,952	1,500	1,929	40	38
Fibers and Textiles							
Net sales.....	48,566	46,344	47,651	46,932	46,216	419	395
Operating income	5,958	4,108	2,871	2,633	1,772	51	48
Trading							
Net sales.....	119,498	119,640	119,266	108,991	108,760	1,030	972
Operating income	3,833	3,882	3,879	3,582	3,358	33	31
Other Business							
Net sales.....	63,838	69,601	68,708	67,334	64,442	550	519
Operating income	2,017	2,773	2,600	2,493	4,001	17	16
Amounts per share:							
					Yen	U.S. dollars (Note 4)	Euro (Note 5)
Net income:							
Basic net income per share	¥ 114.98	¥ 101.84	¥ 78.41	¥ 83.93	¥ 82.62	\$ 0.99	€ 0.93
Diluted net income per share	114.75	101.57	78.25	83.75	82.52	0.99	0.93
Cash dividends applicable to period (Note 3)	41.00	40.00	27.0	36.0	36.0	0.35	0.33
Shareholders' equity.....	1,459.34	1,412.46	1,354.21	1,272.68	1,132.07	12.58	11.86
Financial ratios:							
Cost of sales ratio (%)	65.5	68.1	70.7	69.2	67.5		
Equity ratio (%).....	70.7	70.7	68.7	70.3	67.2		
Return on equity (ROE) (%)	8.0	7.4	6.0	7.0	7.6		
Return on assets (ROA) (%) (Note 7).....	9.5	9.5	7.8	8.1	8.8		
Payout ratio (%) (Note 3)	35.7	39.3	44.4	42.9	43.6		
Number of employees.....	8,590	8,405	8,316	7,550	7,332		

Notes: 1. The Company changed its fiscal year-end from March 31 to December 31. From fiscal 2015, the consolidated reporting period for the Company and its consolidated domestic and overseas subsidiaries is from January 1 to December 31.

2. The figures for fiscal 2014 (adjusted) reflect the 12 months from January to December for the Company and its consolidated domestic and overseas subsidiaries. These figures are unaudited and for comparison purposes only.

3. Cash dividends per share and payout ratio for FY2014 are for the period April 1 to December 31, 2014.

4. The United States dollar amounts represent the translation of Japanese yen at the rate of ¥116 = \$1.

5. Euro amounts represent the translation of Japanese yen at the rate of ¥123 = €1.

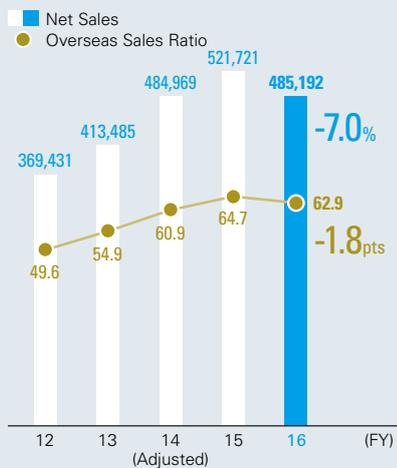
6. From fiscal 2013 (the year ended March 31, 2014), business segments have been reclassified from "Resins," "Chemicals," "Fibers and Textiles," "Trading" and "Others" to the six segments "Vinyl Acetate," "Isoprene," "Functional Materials," "Fibers and Textiles," "Trading" and "Others." Figures for FY2012 have been restated for comparison.

7. Return on assets = Operating income / Average total assets x 100 (%)

Figures have been rounded down to the nearest million yen, U.S. dollar and euro.

Net Sales & Overseas Sales Ratio

(Millions of yen, %)



Operating Income & Operating Income Margin

(Millions of yen, %)



Net Income & ROE

(Millions of yen, %)



Capital Expenditure

(Millions of yen)



R&D Expenses & R&D Expenses Ratio

(Millions of yen, %)



Gross Cash Flow*

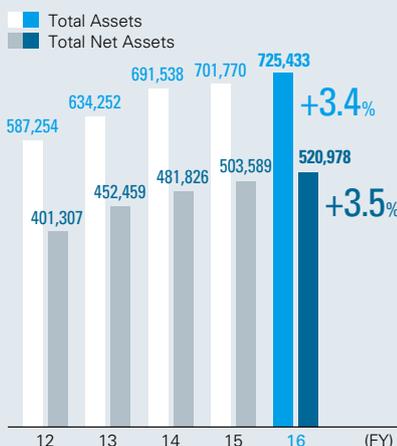
(Millions of yen)



* Gross Cash Flow = Net income + Depreciation and amortization

Total Assets & Total Net Assets

(Millions of yen)



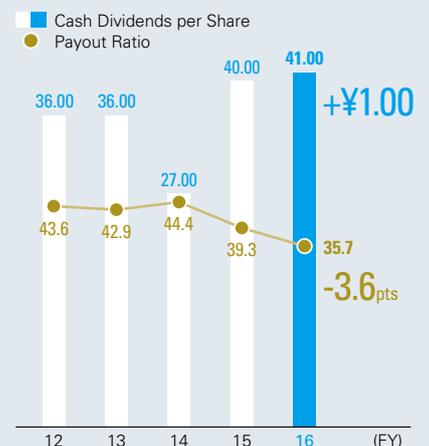
Equity Ratio

(%)



Cash Dividends per Share & Payout Ratio

(Yen, %)



Note: The figures for fiscal 2014 (adjusted) reflect the 12 months from January to December for the Company and its consolidated domestic and overseas subsidiaries. These figures are unaudited and for comparison purposes only. However, cash dividends per share and payout ratio are for the period April 1 to December 31, 2014.

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- Please follow the link <http://www.kuraray.co.jp/en/csr/> for information on our CSR activities.
- For all other information, please visit our website at <http://www.kuraray.co.jp/en/>

FORWARD-LOOKING STATEMENTS

This annual report contains various forward-looking statements, which are based on the current expectations and assumptions of future events. All figures and statements with respect to the future performance, projections and business plans of Kuraray and its Group companies constitute forward-looking statements. Although Kuraray believes its expectations and assumptions are reasonable, actual results and trends of Kuraray's performance could differ materially from those expressed or implied by such figures or statements due to risks and uncertainties in future business circumstances. The factors that may cause such differences include, without limitation: (1) general market and economic conditions in Asia, including Japan, the United States, Europe and other regions; (2) fluctuations of currency exchange rates, especially between the Japanese yen and the U.S. dollar and other foreign currencies; (3) changes in raw material and fuel costs; (4) industrial competition and price fluctuations in Japan and international markets; (5) advances or delays in the construction of new plants and production lines; (6) successful development of new products and technologies; (7) changes in laws and regulations (including tax and environmental) and legal proceedings; and (8) unforeseeable risks, including natural disasters.

In this annual report, italicized product names are trademarks of Kuraray Co., Ltd.



We achieved record profits for the second consecutive year, and will steadily do what we need to do in the final year of GS-STEP.

Q.1

What is your assessment looking back at fiscal 2016?

In fiscal 2016, sales declined to ¥485.2 billion due to the effect of currency translation and a decrease in external sales of vinyl acetate monomer because we increased consumption in-house for our own products. However, operating income was ¥67.8 billion, ordinary income was ¥66.2 billion and net income attributable to owners of the parent was ¥40.4 billion, each a record high for the second consecutive year.

By business, in the PVA resin business, production did not start on schedule at our new plant in the United States, but we increased sales volume in most businesses, as the *EVAL* gas barrier resin and PVB film businesses expanded steadily and sales of high-value-added products in the fibers and textiles business also increased.

Q.2

What measures did you implement in fiscal 2016?

Based on the key management strategies of GS-STEP, we made proactive capital investments and considered production facility expansions to establish a supply network to meet new demand in core businesses and support expansion of our sales regions.

The start of operation at our new U.S. plant was delayed significantly, but with the commencement of operation we reinforced our four-region production structure for PVA resin covering Japan, the United States, Europe and Asia. In addition, we completed an 11,000-ton expansion of production capacity for *EVAL* in Belgium in the second half of the year, and decided to invest in an 11,000-ton capacity expansion in the United States, which is scheduled to come online in mid-2018. With these investments, we will meet the expected global increase in demand for use in food packaging materials, automotive gas tanks and other applications. For water-soluble PVA film, we completed a new plant and began operation in the first half of the year. We will continue to consider timely expansions of production capacity to meet strong demand for water-soluble PVA film for single-use packages for detergents. For PVB film, we decided to expand production capacity at our plant in South Korea, with the start of operation planned in early 2018. The plant will produce high-performance film for automotive applications, primarily in Asia. In the isoprene business, we began feasibility studies for commercialization, including construction of a new plant in Thailand for isoprene, elastomer and *GENESTAR*. In production technology innovation, we established a new manufacturing process that will lead to higher production efficiency for *VECTRAN*.

Since our acquisition of a vinyl acetate-related business from DuPont in 2014, our overseas operations have expanded significantly, increasing the need to obtain management information globally in real time. Therefore, as part of our construction of a global IT system, we will adopt a global SAP system in fiscal 2017 to enable real-time unified management of data.

Q.3

What will your priority be during fiscal 2017?

We will steadily implement concrete measures based on the main strategies of GS-STEP.

For **deepening our core businesses**, we will increase PVA resin production efficiency and further strengthen sales and development with the normalization of production at our new plant in the United States, which hadn't been able to operate as planned in fiscal 2016, giving us a production structure covering four regions worldwide. We will also quickly launch a new facility for optical-use PVA film. To meet steadily growing demand for water-soluble PVA film for single-use packages for detergents, we will consider a further capacity expansion following the start of operation of a new facility last year. We will strengthen marketing for automotive applications for PVB film, and carry out active market development globally for high-performance PVB film and other products. In addition, we will make a decision on commercialization of isoprene, elastomer and *GENESTAR* at a new plant in Thailand, the feasibility of which we began studying in fiscal 2016.

As measures based on **technological innovation**, to make maximum use of our advantage of integrated production of raw materials, we will develop new proprietary technologies for PVA resin, a raw material used in film products such as optical-use and water-soluble PVA film and PVB film. This will allow us to

further shift to high-value-added products such as high-performance films that match the needs of customers. In addition, we will continue to develop catalysts for use in applications such as the polymerization process of high-performance polymers.

In our **next-generation growth model**, we will promote expansion of applications and sales regions for activated carbon in the newly established Carbon Materials Division. We also aim to strengthen and expand business in battery materials and other energy-related materials as growth drivers.

For **optimum allocation of management resources**, we will introduce and use global information management and sharing systems. Specifically, we will introduce a global SAP system for management information and accounting information and begin operation of a global personnel system as part of our efforts to strengthen global human resource development.

In GS-STEP, our medium-term management plan, we have set net sales of ¥650.0 billion and operating income of ¥90.0 billion as performance targets for fiscal 2017, the final year of the plan. However, it will be difficult to achieve these targets, partly because the speed of expansion was delayed in some businesses and we had to adjust strategies in others due to changes in the operating environment. We are taking this situation seriously, and will steadily execute the remaining tasks in fiscal 2017, the final year of GS-STEP. At the same time, we will adjust our strategies in businesses in which our measures have been slow to take effect and businesses that require reassessment due to changes in the market environment. This process will lead to the next medium-term management plan that will begin in fiscal 2018.

Q.4

What steps are you taking for work-style reforms?

In fiscal 2016, we launched a broad range of activities to promote women in the workplace. We took steps such as expanding workplaces in which women can play prominent roles and enhancing systems that enable them to continue to work while balancing job and family obligations. The workplace environment we aim to achieve with work-style reforms, including activities to promote the participation of women, is as follows:

- 1) A company where employees can feel pride and happiness through their work
- 2) A company where employees can apply their individual strengths to achieve results
- 3) A company where employees value how they spend their limited time, and do their jobs with an awareness of regular working hours

To realize this vision, it will be important to rethink ways of working efficiently according to objectives, to communicate with the awareness that our employees are diverse and have different attributes and ways of thinking, and to clearly inform employees about the purpose and background of jobs so that work is done with mutual understanding. This is the first step in diversity management, which includes not just women but also local employees overseas, the number of whom is increasing with our global expansion. I believe such steps are essential to enabling every Kuraray Group employee worldwide to work with enthusiasm.

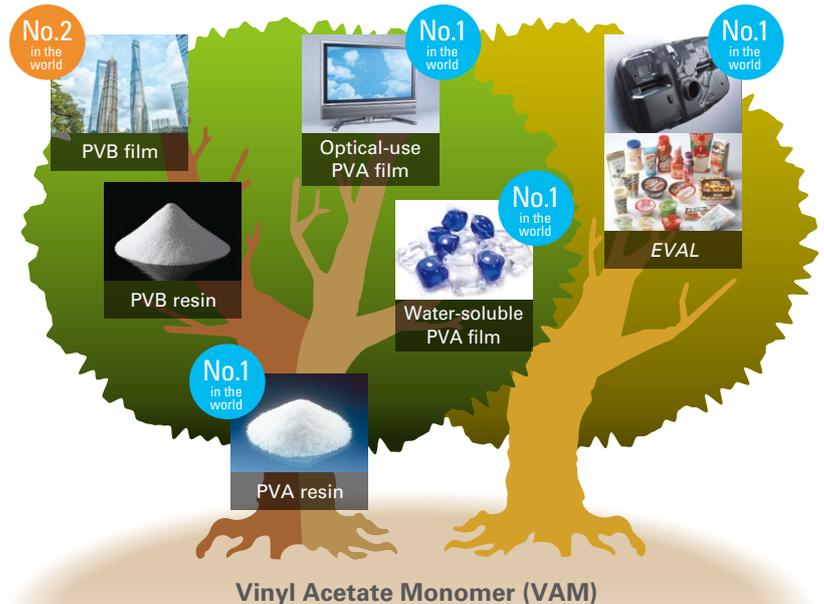
As a first step, in fiscal 2016, we reaffirmed the necessity of promoting women in the workplace, and held workshops for directors, department managers, division managers and site managers to ensure that everyone is moving in the same direction. As we continue to implement various initiatives, our promotion of women in the workplace, just one measure in work-style reforms, will not only benefit women; it will also tie into measures aimed at creating an environment for employees' work/life balance to accommodate diverse work styles regardless of gender.

Global Strategy for the

Production in Six Locations and Four Key Regions Established with

In April 2016, Kuraray established a PVA resin production system with six locations in four key regions to achieve further growth. As the leading global manufacturer of PVA resin, Kuraray will continue to offer products that are world-class in terms of function, quality and service.

The Core Vinyl Acetate Material: PVA Resin



Main Uses of PVA Resin

A high-performance resin first commercialized by Kuraray, PVA resin is used as a raw material in the production of PVA fiber *KURALON*. It is water-soluble, a unique property among synthetic resins, and has superior formability, adhesiveness, emulsibility, oil resistance and chemical resistance. Initially it was used only in-house as a raw material for *KURALON*, but because of expected growth in demand for the material as a fiber processing agent and paper processing agent, Kuraray began commercial sales of PVA resin in 1958.

Today, PVA resin is used in a wide range of applications, including as an adhesive agent, a polymerization stabilizer for polyvinyl chloride in addition to its traditional applications as an agent in areas such as fiber and textile processing and paper processing. PVA resin is also used as a raw material in Kuraray's own products, such as *KURALON*, optical-use PVA film and water-soluble PVA film. Moreover, it is a key resin in Kuraray's core vinyl acetate business. For example, PVB resin, a raw material used as an interlayer in laminated safety glass for automobile windshields and other applications, is manufactured from PVA resin.

History of the Globalization of the PVA Business

Until the 1990s, Kuraray met growing demand with expansions of its two production bases in Japan, the Okayama Plant and the Niigata Plant. In 1999, Kuraray began production in Singapore to expand its business in overseas markets and boost its international competitiveness. With the acquisition of the PVA-related business of Clariant AG in 2001, Kuraray obtained its own production base in Germany. Owning a plant in the United States had been a long-held aspiration, and in 2012 Kuraray decided to build a new plant in the United States and began construction. Kuraray later obtained a U.S. production base with the acquisition of the vinyl acetate-related business (glass laminating solutions (GLS) business) of E.I. du Pont de Nemours and Company in 2014. The addition of this new U.S. plant instantly gave the company the capacity to expand its business in North America and Central and South America.

PVA Resin Business

the Startup of a New Plant in North America



About the New U.S. Plant

The dedication ceremony for Kuraray's new U.S. plant was held on April 21, 2016. Approximately 120 people attended the event, including officials from Harris County, Texas, where the plant is located, the mayor of La Porte, the Japanese Consul General in Houston, and Kuraray customers. The event featured a Japanese sake barrel-breaking ceremony called *kagami biraki*.

With a production capacity of 40,000 tons per year, the new U.S. plant will enable integrated production from vinyl acetate monomer (VAM), a PVA raw material obtained with the acquisition of DuPont's vinyl acetate (GLS) business. The plant will be highly cost competitive due to its ability to use shale gas and other inexpensive raw materials and fuels.

The new plant also has production capacity for *EXCEVAL*, a differentiated product with superior water resistance, viscosity stability of its aqueous solution and biodegradability compared to conventional PVA resins.

The integration of the GLS business was completed in July 2015, and the new U.S. plant and the PVA resin (*ELVANOL*) plant of the former GLS business are now conducting integrated operations. This will allow the two plants to maximize synergy through a broader range of PVA resin brands and increased sales channels, and lead to expanded business in the North American and Central and South American markets. In addition, Kuraray will further strengthen joint development of water-soluble PVA film with MonoSol, LLC, which will lead to expansion of the water-soluble PVA film business.

Global Strategy of the PVA Business

With the start of operation at the new U.S. plant, Kuraray's global production capacity for PVA resin totals 361,000 tons per year: 124,000 tons in Japan (96,000 tons at the Okayama Plant and 28,000 tons at the Niigata Plant), 40,000 tons in Singapore, 94,000 tons in Germany, and 103,000 tons in the United States (63,000 tons at the plant of the former GLS business and 40,000 tons at the new plant). This optimized production system spanning six locations in four key regions of the world will serve as the foundation for providing stable supplies of high-quality products globally. In addition, Kuraray will advance a differentiation strategy utilizing the unique strengths of each plant, and increase the proportion of high-value-added and high-performance applications.

Furthermore, the operation of unified global production, development and sales teams will be strengthened, allowing Kuraray to provide products and services that better anticipate customer and market needs as a solution provider.

Global demand for PVA resin is projected to continue to grow. By smoothly executing these strategies, Kuraray will expand its business and further strengthen its business foundation to solidify its position as the world's leading manufacturer of PVA resin.



The new U.S. PVA plant



Sake barrel-breaking at the dedication ceremony (Fourth from left: Kuraray President Masaaki Ito; far right: Kuraray America President George Avdey)

Vinyl Acetate

Share of Net Sales

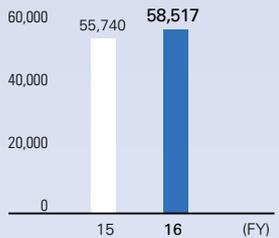


The Vinyl Acetate segment domestically produces PVA resin, optical-use PVA film and EVAL gas barrier resin. The segment also produces and sells PVA resin, water-soluble PVA film, PVB resin and film, SentryGlas® and EVAL in the United States, PVA resin, PVB resin and film, and EVAL in Europe and PVA resin and PVB film in Asia.

Net Sales (Millions of yen)



Operating Income (Millions of yen)



Main Products

KURARAY POVAL, ELVANOL (PVA resin)

Global Market Share: 40% (excluding China)

Paper / fiber processing agents, adhesives and others



Optical-use PVA film

Global Market Share: 80%

LCD televisions, mobile phone screens and others



Water-soluble PVA film

Water-soluble delivery system and others



TROSIFOL, BUTACITE (PVB film)

Interlayers for laminated safety glass and photovoltaic module encapsulation



EVAL resin (EVOH resin) / EVAL film (EVOH film)

Global Market Share: 65%

Food packaging, automobile tanks / vacuum insulation panels for refrigerators and others



PLANTIC

Bio-based barrier material with applications that include fresh food packaging and industrial uses



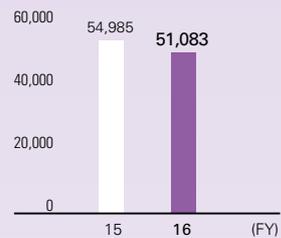
Isoprene

Share of Net Sales

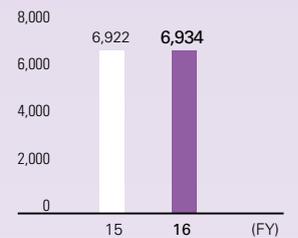


The Isoprene segment domestically produces isoprene, fine chemicals, GENESTAR, SEPTON, liquid rubber, KURARITY acrylic thermoplastic elastomer and other goods for sale in Japan and abroad. The segment also produces and sells SEPTON in the United States.

Net Sales (Millions of yen)



Operating Income (Millions of yen)



Main Products

Isoprene chemicals

Pharmaceutical and agrichemical intermediates, ingredients for fragrances, cosmetics



SEPTON, HYBRAR (Thermoplastic elastomer)

Global Market Share: 20%

Substitute for rubber: Automobile parts, electronic parts, stationery, toys, sporting goods and others



GENESTAR (Heat-resistant polyamide resin)

Global Market Share: 100%

Mobile phones, personal computers, digital cameras, LCDs, LED reflector applications, automobiles and others



Liquid Rubber

Additive agent for automobile tires and others



KURARITY (Acrylic thermoplastic elastomer)

Adhesives, molding materials and others





No.1

Product holds the world's number-one market share



Only One

Product is the only one of its kind in the world

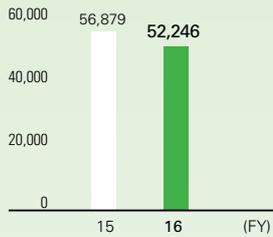
Functional Materials

Share of Net Sales

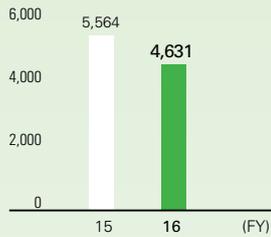


The Functional Materials segment domestically produces methacrylic resin, *CLARINO*, and dental materials in the medical business. The segment also produces methacrylic resin and *CLARINO* in China.

Net Sales (Millions of yen)



Operating Income (Millions of yen)



Main Products

CLARINO (Man-made leather) Global Market Share: 25%

Men's and women's shoes, bags, athletic footwear and large inflatable sports balls



Methacrylic resin

Light guide plates for LCDs, automobile light covers, signboards, construction material and others



Dental materials

Materials for treating cavities to restore teeth to a near-natural state



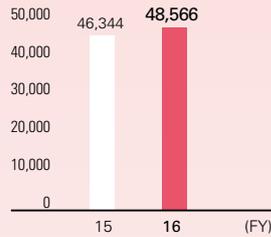
Fibers and Textiles

Share of Net Sales

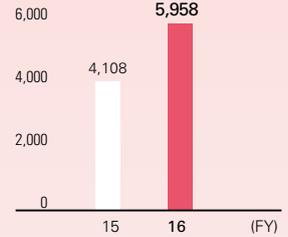


The Fibers and Textiles segment produces and sells *KURALON*, polyester staple, *KURAFLEX*, hook and loop fasteners and other products.

Net Sales (Millions of yen)



Operating Income (Millions of yen)



Main Products

KURALON (PVA fiber) Global Market Share: 100% (excluding China)

Reinforcing material for cement and concrete and others



KURAFLEX, *FELIBENDY* (Non-woven fabric)

Everyday goods, industrial products (wipers, automobile applications) and others



MAGIC TAPE (Hook and loop fastener)

Clothing, sporting goods, industrial materials and others



VECTRAN (Polyarylate fiber)

Rope, fishing nets and other industrial products



Trading, Others

The Trading segment includes importing and exporting as well as the wholesaling of fibers and textiles such as polyester filament and chemicals. These activities are operated by KURARAY TRADING CO., LTD. and its subsidiaries. Others include the production and sale of such items as high-performance membranes, activated carbon and others.

Main Products

KURARAY COAL (Activated carbon)

Water purification facilities, gas separators and capacitor materials



Polyester filament

Materials for non-woven fabrics and industrial materials / Woven and knitted textiles, tents and sheets



Environmental business

Water purification, wastewater treatment, ballast water management system and others



Results for Fiscal 2016

Vinyl Acetate



Sales of PVA resin were not able to absorb the depreciation and other costs of the new U.S. plant because it did not achieve stable production. Sales volume of optical-use PVA film was solid as demand for use in LCD panels recovered. Sales of water-soluble PVA film were firm. Sales of PVB film were favorable for both architectural and automotive applications. Sales of *EVAL* ethylene vinyl alcohol copolymer (EVOH resin) grew favorably for both food packaging and automotive gas tank applications.

As a result, segment sales decreased 7.9% year on year to ¥253,175 million, and segment income increased 5.0% year on year to ¥58,517 million.

Isoprene



In isoprene chemicals, sales of fine chemicals, *SEPTON* thermoplastic elastomer and liquid rubber were all firm. Sales of *GENESTAR* heat-resistant polyamide resin continued to expand for automotive applications and rebounded for connector applications. On the other hand, sales for LED reflector applications continued to struggle.

As a result, segment sales decreased 7.1% year on year to ¥51,083 million, and segment income increased 0.2% to ¥6,934 million.

Functional Materials



For methacrylic resins, a severe operating environment continued, but sales volume recovered at the end of the period. In the medical business, sales of dental materials were favorable due to an expanded range of new product offerings and greater synergies through business integration on the sales front. Sales of *CLARINO* man-made leather were unable to absorb the impact of the stronger yen in currency translation.

As a result, segment sales decreased 8.1% year on year to ¥52,246 million, and segment income decreased 16.8% year on year to ¥4,631 million.

Fibers and Textiles



Sales of *KURALON* for high-value-added applications were brisk. In addition, sales of consumer goods and materials, especially *KURAFLEX*, were favorable.

As a result, segment sales increased 4.8% year on year to ¥48,566 million, and segment income increased 45.1% year on year to ¥5,958 million.

Trading, Others



Trading

Results from chemical-related businesses were firm, while sales in fiber-related businesses bore the brunt of weak domestic demand, except for certain applications.

As a result, segment sales decreased 0.1% year on year to ¥119,498 million, and segment income decreased 1.3% to ¥3,833 million.

Other Business

In other businesses, development costs rose due to the addition of the energy materials business in the first quarter.

As a result, segment sales decreased 8.3% year on year to ¥63,838 million, and segment income decreased 27.2% to ¥2,017 million.

Performance Forecast for Fiscal 2017

Regarding the operating environment in fiscal 2017, the outlook for the global economy is increasingly unclear, with factors such as the policies of the new U.S. president, the issue of the United Kingdom's withdrawal from the European Union and national elections scheduled in major European countries. Amid these conditions, moderate economic recovery is expected in Japan. Business conditions in the United States are forecast to remain generally brisk, and in Europe, a moderate recovery is forecast to continue. In China, temporary calm is expected to continue with the halt of the recession. In emerging countries, there are concerns about a continued slowdown in growth.

Until now, the Company's results benefited from cost reductions resulting from declines in raw material and fuel prices up to 2016. However, in fiscal 2017 prices of raw materials and fuel are expected to rise, with an accompanying increase in manufacturing costs. On the other hand, because a time lag arises in adjusting selling prices of products, there are concerns about continuing

decreases in selling prices of some products in fiscal 2017.

Under the two years to date of GS-STEP (FY2015-FY2017), its medium-term management plan, the Company has been steadily implementing concrete measures for the five main management strategies put forth in the plan (deepening of core businesses, technological innovation, next-generation growth model, optimum allocation of management resources, and contribution to the environment). In fiscal 2017, which is the final year of GS-STEP, the Company will implement the remaining measures and to revise its strategies for businesses that are late in displaying results from the measures and businesses that require reconsideration due to changes in the market environment, which will lead to its next medium-term management plan that will begin in 2018.

Based on these circumstances, the forecast of operating results for fiscal 2017 is as shown below.

(Billions of yen, rounded to the nearest hundred million)

	Fiscal 2016	Forecast for Fiscal 2017	Change
Net Sales	485.2	530.0	+9.2%
Operating Income	67.8	70.0	+3.2%
Ordinary Income	66.2	68.0	+2.7%
Net Income Attributable to Owners of the Parent	40.4	42.0	+4.0%

For the forecast of operating results for fiscal 2017, we assume average exchange rates of ¥110 to the U.S. dollar and ¥120 to the euro, as well as a domestic naphtha price of ¥36,000 per kiloliter.

Change in Segment Classification

In fiscal 2016, the "activated carbon business" and "energy materials business" were classified in the Other Business

segment. In connection with the merger by absorption of Kuraray Chemical Co., Ltd. on January 1, 2017, the Company has decided to integrate these businesses into the "carbon materials business" and reclassify it into the Functional Materials segment in fiscal 2017.

The following compares the forecast for fiscal 2017 and restated results for fiscal 2016 after the change in classification.

[Reference] Forecast of Results by Segment for Fiscal 2017

(Billions of yen, rounded to the nearest hundred million)

	Net Sales		Operating Income	
	Fiscal 2016 (Reclassified)	Forecast for Fiscal 2017	Fiscal 2016 (Reclassified)	Forecast for Fiscal 2017
Vinyl Acetate	253.2	269.0	58.5	60.5
Isoprene	51.1	57.5	6.9	7.5
Functional Materials	68.0	73.5	4.5	5.5
Fibers and Textiles	48.6	52.0	6.0	5.5
Trading	119.5	125.0	3.8	4.0
Other Business	46.3	54.5	1.4	2.0
Elimination & Corporate	(101.4)	(101.5)	(13.3)	(15.0)
Total	485.2	530.0	67.8	70.0

Corporate Governance

Basic Philosophy on Corporate Governance

Kuraray believes that the maintenance of appropriate relationships with various stakeholders, including shareholders, and the fulfillment of social responsibilities are consistent with its objective of achieving long-term improvement in business results and sustainable growth as a global company. Kuraray believes it is a fundamental and important obligation to fulfill its social responsibilities by enhancing corporate governance and establishing highly transparent and fair corporate management.

As a company with a Board of Corporate Auditors, Kuraray has established a corporate governance system centered on its Board of Directors and Board of Corporate Auditors to improve the effectiveness of supervisory and monitoring functions while maintaining management efficiency and to provide guidance for issues including management compensation, selection of new company officers, internal controls and risk management.

Corporate Governance Systems

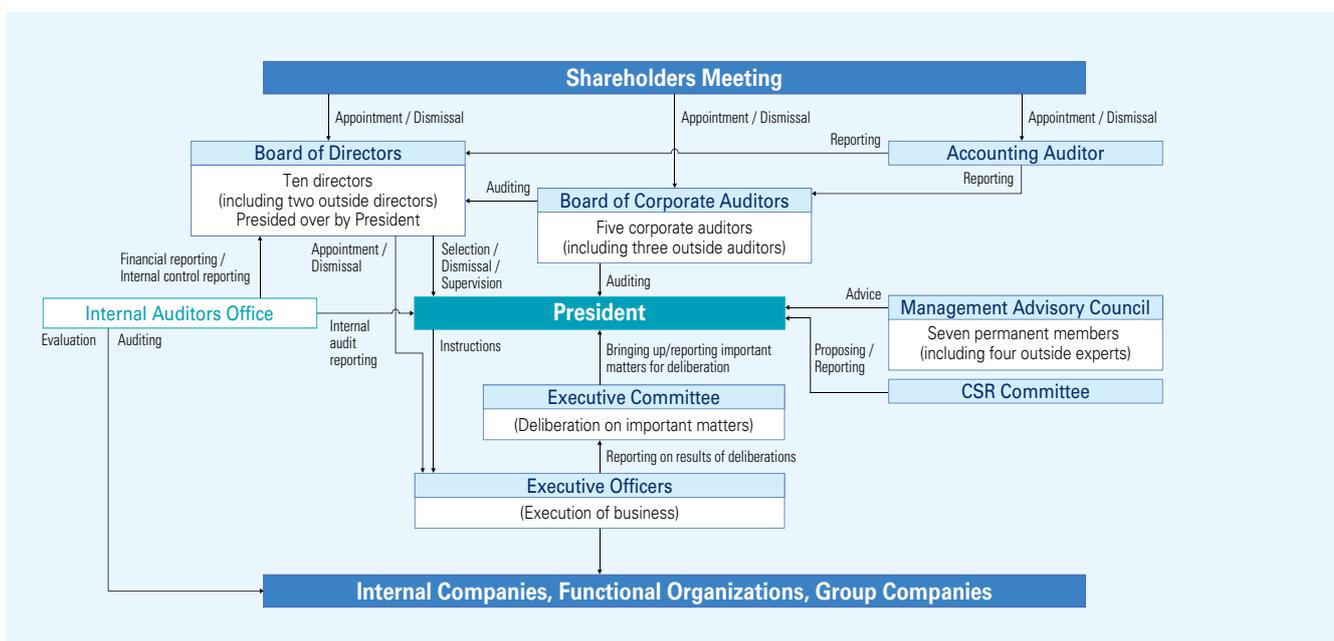
1. Board of Directors and Executive Organization

The Board of Directors (convenes at least once a month), according to the Board of Directors' Regulations, deliberates and decides important management matters, including legal matters, and supervises the execution of business. The maximum number of directors is twelve, and the term of office is one year. There are currently ten board members,

including two outside directors. Outside director candidates should have careers and professional experience that enable them to be independent. No personal, capital, transactional or other relationship that would present a conflict of interest exists between Kuraray and the outside directors.

Kuraray has entered into agreements with its outside directors, limiting their liability for damage as stipulated in Article 423, Paragraph 1 pursuant to Article 427, Paragraph 1 of the Companies Act of Japan. Such agreements limit the liability amount as set forth in such Act. However, such limitation of liability is approved only if the applicable outside director has executed his duties in good faith without knowledge of or committing gross negligence. As the chief executive responsible for business execution, the president appointed by the Board of Directors exercises control over the execution of business in the Kuraray Group. Every executive officer (one-year term of office) appointed by the Board of Directors is responsible for business execution in the Kuraray Group organization. As the heads of internal companies, divisions and major functional organizations, the executive officers bear responsibility for operations and profit. Some directors hold concurrent positions as executive officers.

The president has established the Executive Committee (in principle, convenes twice a month) and various other councils and committees to deliberate and report on important matters concerning the Group's management policies and business execution.



2. Board of Corporate Auditors

The Board of Corporate Auditors consists of five corporate auditors, including three outside corporate auditors with extensive experience in areas including finance, law and management who perform their duties from a third-party standpoint. Outside corporate auditor candidates should have careers and professional experience that enable them to be independent. No personal, capital, transactional or other relationship that would present a conflict of interest exists between Kuraray and the outside corporate auditors. The corporate auditors attend meetings of the Board of Directors and other important meetings, and monitor the directors' performance of duties through inquiries conducted by such means as the examination of important documents and requests for explanations of the state of business affairs. In principle, the Board of Corporate Auditors convenes monthly. The corporate auditors regularly have meetings with the accounting auditor, PricewaterhouseCoopers Aarata LLC, and the Internal Auditors Office (consisting of eight members), which conducts internal audits. In these meetings, they receive reports on audit content and share information concerning audit planning, implementation and related matters. The corporate auditors also serve as corporate auditors of core subsidiary companies to ensure subsidiary audits are performed appropriately and attend periodic Group Auditor Liaison Meetings consisting of the subsidiary auditors to deepen their understanding of each company.

Kuraray has entered into agreements with its auditors, limiting their liability for damage as stipulated in Article 423, Paragraph 1

pursuant to Article 427, Paragraph 1 of the Companies Act of Japan. Such agreements limit the liability amount as set forth in such Act. However, such limitation of liability is approved only if the applicable outside auditor has executed his duties in good faith without knowledge of or committing gross negligence.

3. Management Advisory Council

Kuraray has established the Management Advisory Council to serve as a consultative body to give the president advice from the perspectives of compliance, the protection of shareholder rights and management transparency. The Council currently consists of seven permanent members, comprising four outside experts with a wealth of experience and broad insight in economics, finance, corporate management and other fields, as well as one inside director (the president of the Company) and two others (an advisor and an outside director), with the advisor serving as chairman. The Council convenes twice a year to advise the president on such matters as important management policies and issues, succession of the president, selection of successor candidates and compensation for the president.

4. Status of Accounting Auditor

No special interests exist between Kuraray and the accounting auditor, PricewaterhouseCoopers Aarata, or the engagement partners of such auditing firm who audit Kuraray. In addition, such auditing firm voluntarily takes steps to ensure the engagement partners are not involved in audits of Kuraray for longer than the prescribed period of time.

Internal Control

Basic Policy for Establishment of an Internal Control System

The Kuraray Group recognizes that establishing and operating internal control systems is an important management task, and its Board of Directors has set forth the following Basic Policy for Establishment of Internal Control Systems.

1. Systems to ensure compliance of execution of duties of Directors and employees with laws, regulations and the Articles of Incorporation
2. Systems concerning storage and management of information regarding execution of duties of Directors
3. Regulations and other systems regarding management of risk of loss
4. Systems to ensure efficient execution of duties by Directors
5. Systems to ensure the propriety of business operations at the corporate group, composed of the Company and subsidiaries
6. Independence from Directors of employees assisting the duties of Company Auditors and items regarding ensuring the effectiveness of instructions given to these employees
7. Systems regarding reporting to Company Auditors of the Company and systems to ensure persons who make reports do not receive detrimental treatment as a result of making a report
8. Items regarding prepayment of expenses, procedures for reimbursement, and policies regarding processing of other expenses and liabilities arising from execution of duties by Company Auditors
9. Other systems to ensure that audits by Company Auditors are made effectively

Board of Directors, Corporate Auditors and Executive Officers

(As of March 24, 2017)

Board of Directors

Representative Director and President



Masaaki Ito

April 1980 Entered Kuraray Co., Ltd.
 June 2012 Executive Officer
 April 2013 Vice President of Functional Materials Company
 June 2013 Senior Executive Officer
 April 2014 Officer Responsible for Corporate Management Planning Division and CSR Division, and General Manager of Corporate Management Planning Division
 June 2014 Director and Senior Executive Officer
 January 2015 Representative Director and President (Current position)

Representative Director and Primary Executive Officer



Sadaaki Matsuyama

President of Functional Materials Company
 April 1975 Entered Kuraray Co., Ltd.
 June 2010 Executive Officer
 April 2012 Representative Director and President of Kuraray Noritake Dental Inc.
 June 2012 Senior Executive Officer
 April 2013 President of Functional Materials Company (Current position) and General Manager of Medical Division, Functional Materials Company
 June 2013 Director and Senior Executive Officer
 March 2016 Director and Primary Executive Officer
 June 2016 Representative Director and Primary Executive Officer (Current position)

Director and Primary Executive Officer



Kazuhiko Kugawa

Officer Responsible for Corporate Management Planning Office and Administrative Unit
 April 1976 Entered Kuraray Co., Ltd.
 June 2012 Executive Officer
 April 2013 Vice President of Vinyl Acetate Company
 June 2013 Senior Executive Officer
 June 2014 Director and Senior Executive Officer
 January 2015 President of Vinyl Acetate Resin Company
 January 2016 Officer Responsible for Corporate Management Planning Office (Current position), Officer Responsible for Administrative Unit (Current position)
 March 2016 Director and Primary Executive Officer (Current position)

Director and Primary Executive Officer



Hiroaya Hayase

President of Vinyl Acetate Resin Company and Vinyl Acetate Film Company
 April 1980 Entered Kuraray Co., Ltd.
 April 2012 General Manager of Poval Resin Division, Resin Company
 June 2012 Executive Officer
 April 2013 General Manager of Poval Resin Division and Production and Technology Management Division, Vinyl Acetate Company
 June 2014 Senior Executive Officer
 January 2015 President of Vinyl Acetate Film Company (Current position)
 March 2015 Director and Senior Executive Officer
 January 2016 President of Vinyl Acetate Resin Company (Current position)
 March 2016 Director and Primary Executive Officer (Current position)

Director and Senior Executive Officer



Kazuhiro Nakayama

Officer Responsible for Technology Division, Environmental Business Development and Promotion Division and Plants in Japan
 April 1980 Entered Kuraray Co., Ltd.
 April 2012 General Manager, Kurashiki Plant, General Manager of Technology Development Center, Technology Division
 June 2012 Executive Officer
 April 2013 General Manager of Global Business Planning Division, Vinyl Acetate Company
 April 2014 General Manager of Technology Division
 January 2016 Officer Responsible for Technology Division, Environmental Business Development and Promotion Division and Plants in Japan (Current position)
 March 2016 Director and Senior Executive Officer (Current position)

Director and Senior Executive Officer



Kenichi Abe

President of Isoprene Company
 April 1980 Entered Kuraray Co., Ltd.
 April 2012 General Manager of Corporate Management Planning Division
 June 2012 Executive Officer
 April 2013 General Manager of New Business Development Division
 January 2016 President of Isoprene Company (Current position)
 March 2016 Director and Senior Executive Officer (Current position)

Director and Senior Executive Officer



Yoshimasa Sano

Vice President of Functional Materials Company, General Manager of Carbon Materials Division, Functional Materials Company
 April 1980 Entered Kuraray Co., Ltd.
 April 2010 General Manager of Elastomer Division, Chemicals Company
 June 2012 Executive Officer
 April 2014 General Manager of Methacrylate Division, Functional Materials Company
 January 2016 Vice President of Functional Materials Company (Current position)
 March 2016 Director and Senior Executive Officer (Current position)
 January 2017 General Manager of Carbon Materials Division, Functional Materials Company (Current position)

Director and Senior Executive Officer



Hitoshi Toyoura

President of Fibers and Textiles Company, Officer Responsible for Osaka Head Office
 April 1982 Entered Kuraray Co., Ltd.
 April 2010 General Manager of Fibers and Industrial Materials Division, Fibers and Textiles Company
 June 2013 Executive Officer
 January 2015 General Manager of Consumer Goods and Materials Division, Fibers and Textiles Company
 March 2015 President of Kuraray Fastening Co., Ltd.
 January 2016 President of Fibers and Textiles Company (Current position), Officer Responsible for Osaka Head Office (Current position)
 March 2016 Director and Senior Executive Officer (Current position)

Director



Tomokazu Hamaguchi¹

April 1967 Entered Nippon Telegraph and Telephone Public Corporation
 June 1995 Senior Vice President, NTT Data Communications Systems Corporation (Currently NTT Data Corporation)
 June 1997 Executive Vice President, NTT Data Corporation
 June 2001 Senior Executive Vice President, NTT Data Corporation
 June 2003 President and CEO, NTT Data Corporation
 June 2007 Director and Senior Corporate Advisor, NTT Data Corporation
 April 2008 Board Director, IHI Corporation (Current position)
 June 2009 Senior Corporate Advisor, NTT Data Corporation
 June 2010 Director, East Japan Railway Company (Current position)
 June 2013 Director, Kuraray Co., Ltd. (Current position)
 October 2014 Director, FPT Corporation (Current position)

Director



Jun Hamano¹

April 1974 Entered Economic Planning Agency of Japan
 July 1999 Director, Minister's Secretariat Division, EPA
 January 2001 Director, Personnel Division, Minister's Secretariat, Cabinet Office
 January 2002 Deputy Director General for Economic and Fiscal Management, Cabinet Office
 July 2004 Director General for Economic and Fiscal Management, Cabinet Office
 July 2006 Vice-Minister for Policy Coordination, Cabinet Office
 July 2008 Deputy Vice-Minister, Cabinet Office
 July 2009 Vice-Minister, Cabinet Office
 January 2012 Advisor, Cabinet Office
 April 2013 Executive Advisor, DENTSU INC. (Current position)
 June 2014 Director, Ohara Memorial Healthcare Foundation (Current Position)
 June 2015 Chairman, the Institute for Science of Labour
 September 2015 Chairman, the Ohara Memorial Institute for Science of Labour (Current Position)
 March 2016 Director, Kuraray Co., Ltd. (Current position)

Corporate Auditors

Standing Corporate Auditors



Keiji Murakami



Kunio Yuki Yoshi



Mie Fujimoto²



Yoshimitsu Okamoto²



Mikio Nakura²

Notes: 1. Directors Tomokazu Hamaguchi and Jun Hamano are independent outside Directors.

2. Corporate Auditors Mie Fujimoto, Yoshimitsu Okamoto and Mikio Nakura are independent outside Corporate Auditors.

Corporate Auditors

Senior Executive Officer

Tsugunori Kashimura

Officer Responsible for Research and Development Division, General Manager of Research and Development Division

Executive Officers

Matthias Gutweiler

President of Kuraray Europe GmbH

George Avdey

President of Kuraray America, Inc.

Yukinori Yamane

General Manager of Purchasing and Logistic Division

Akira Omura

Vice President of Vinyl Acetate Resin Company,
 General Manager of Production and Technology Management Division, Vinyl Acetate Resin Company
 General Manager of Production and Technology Management Division, Vinyl Acetate Film Company

Hirohide Hayashi

General Manager of Technology Division

P. Scott Bening

General Manager of WS Film Division, Vinyl Acetate Film Company,
 President of MonoSol, LLC.

Stephen Cox

General Manager of PVB Division, Vinyl Acetate Film Company

Toshinori Tsugaru

General Manager of Okayama Plant

Koichi Takano

General Manager of Elastomer Division, Isoprene Company

Nobuhiko Takai

General Manager of Genestar Division, Isoprene Company

Toshihiro Omatsu

General Manager of Isoprene Chemical Division, Isoprene Company

Hitoshi Kawahara

Vice President of Vinyl Acetate Film Company,
 General Manager of Poval Film Division, Vinyl Acetate Film Company

Hajime Suzuki

Vice President of Kuraray America, Inc.

Ikuo Nakamura

General Manager of Clarino Division, Functional Material Company

Ichiro Matsuzaki

General Manager of Kurashiki Plant

Keiji Taga

General Manager of Medical Division, Functional Material Company

Business Environment

In the fiscal year ended December 31, 2016 ("fiscal 2016"), signs of economic recovery were apparent in Japan due to the depreciation of the yen at the end of the period. In the global economy, business conditions in the United States were brisk, backed by positive employment conditions in addition to personal consumption. In Europe, the economy continued to gradually improve. Although the United Kingdom's decision to leave the European Union cast a shadow on Europe's outlook, there has currently been no major impact. Meanwhile, the deceleration of China's economy was halted by the government's successful measures to stimulate consumption. An economic slowdown continued in emerging countries.

Under these circumstances, the Kuraray Group has been successively implementing the business strategies outlined in GS-STEP, its medium-term management plan that started in fiscal 2015, to realize "a high-profit specialty chemical company with a global presence."

Results by Business Segment

	(Billions of yen, rounded to the nearest hundred million)			
	Net Sales		Operating Income	
	Fiscal 2016	Fiscal 2015	Fiscal 2016	Fiscal 2015
Vinyl Acetate.....	253.2	274.7	58.5	55.7
Isoprene.....	51.1	55.0	6.9	6.9
Functional Materials.....	52.2	56.9	4.6	5.6
Fibers and Textiles	48.6	46.3	6.0	4.1
Trading	119.5	119.6	3.8	3.9
Other Business.....	63.8	69.6	2.0	2.8
Elimination & Corporate.....	(103.2)	(100.5)	(14.1)	(12.9)
Total	485.2	521.7	67.8	66.1

Vinyl Acetate

Sales in this segment decreased 7.9% year on year to ¥253,175 million (\$2,183 million), and segment income rose 5.0% year on year to ¥58,517 million (\$504 million).

- 1) Sales of PVA resin were not able to absorb the depreciation and other costs of the new U.S. plant because it did not achieve stable production. Sales volume of optical-use PVA film recovered as LCD panels reached the end of a stage of production adjustments. Sales of water-soluble PVA film were firm. Sales of PVB film were favorable.
- 2) Sales of EVAL ethylene vinyl alcohol copolymer (EVOH resin) grew favorably for both food packaging and automotive gas tank applications.

Sales

	(Billions of yen, rounded to the nearest hundred million)		
	Fiscal 2016	Fiscal 2015	Change
Net Sales	485.2	521.7	-7.0%
Operating Income.....	67.8	66.1	+2.6%
Ordinary Income	66.2	64.5	+2.5%
Net Income Attributable to Owners of the Parent	40.4	35.7	+13.0%

The Kuraray Group's consolidated net sales for fiscal 2016 decreased ¥36,529 million (\$315 million), or 7.0%, compared with the previous fiscal year to ¥485,192 million (\$4,183 million); operating income increased ¥1,749 million (\$15 million), or 2.6%, to ¥67,827 million (\$585 million); ordinary income increased ¥1,645 million (\$14 million), or 2.5%, to ¥66,181 million (\$571 million); and net income attributable to owners of the parent increased ¥4,650 million (\$40 million), or 13.0%, to ¥40,400 million (\$348 million).

Isoprene

Sales in this segment decreased 7.1% year on year to ¥51,083 million (\$440 million), and segment income increased 0.2% year on year to ¥6,934 million (\$60 million).

- 1) In isoprene chemicals, sales of fine chemicals, SEPTON thermoplastic elastomer and liquid rubber were all firm.
- 2) Sales of GENESTAR heat-resistant polyamide resin continued to expand for automotive applications and rebounded for connector applications. On the other hand, sales for LED reflector applications continued to struggle.

Functional Materials

Sales in this segment decreased 8.1% year on year to ¥52,246 million (\$450 million), and segment income decreased 16.8% year on year to ¥4,631 million (\$40 million).

- 1) For methacrylic resins, a severe environment continued, but sales volume recovered at the end of the period.
- 2) In the medical business, sales of dental materials were favorable due to an expanded range of new product offerings and greater synergies through business integration on the sales front.
- 3) For *CLARINO* man-made leather, sales were unable to absorb the impact of the stronger yen in currency translation.

Fibers and Textiles

Sales of *KURALON* for high-value-added applications were brisk. In addition, sales of consumer goods and materials, especially *KURAFLEX*, were favorable. As a result, sales in this segment increased 4.8% year on year to ¥48,566 million (\$419 million), and segment income increased 45.1% year on year to ¥5,958 million (\$51 million).

Trading

Results from chemical-related businesses were firm, while sales in fiber-related businesses bore the brunt of weak domestic demand, except for certain applications. As a result, segment sales decreased 0.1% year on year to ¥119,498 million (\$1,030 million), and segment income decreased 1.3% to ¥3,833 million (\$33 million).

Other Business

In other businesses, development costs rose due to the addition of the energy materials business in the first quarter. As a result, segment sales decreased 8.3% year on year to ¥63,838 million (\$550 million), and segment income decreased 27.2% to ¥2,017 million (\$17 million).

Financial Position

As of December 31, 2016, cash and deposits stood at ¥51,437 million (\$443 million), an increase of ¥14,441 million (\$124 million) compared to December 31, 2015. Notes and accounts receivable – trade increased ¥2,931 million (\$25 million) to ¥105,010 million (\$905 million). Short-term investment securities increased ¥20,258 million (\$175 million) to ¥39,064 million (\$337 million). Inventories (merchandise and finished goods,

work-in-process, and raw materials and supplies) decreased ¥918 million (\$8 million) to ¥111,268 million (\$959 million), and inventory turnover (the number of months' sales in inventory) was 2.8 months. Current assets increased ¥28,488 million (\$246 million) or 9.6% to ¥324,974 million (\$2,802 million). Working capital (current assets less current liabilities) increased ¥27,802 million (\$240 million) to ¥228,838 million (\$1,973 million).

The current ratio (current assets divided by current liabilities) at December 31, 2016 increased to 338.0% from 310.6% at December 31, 2015. Tangible fixed assets increased ¥9,807 million (\$85 million) to ¥271,827 million (\$2,343 million). This included factors such as an increase in machinery, equipment and vehicles (net) of ¥35,000 million (\$302 million) to ¥162,963 million (\$1,405 million) and a decrease in construction in progress of ¥26,705 million (\$230 million) to ¥29,904 million (\$258 million). Intangible fixed assets decreased ¥4,438 million (\$38 million) to ¥79,537 million (\$686 million). Investments and other assets decreased by ¥10,193 million (\$88 million) to ¥49,093 million (\$423 million) due mainly to a decrease in investment securities of ¥12,034 million (\$104 million) to ¥34,023 million (\$293 million). Total assets increased ¥23,663 million (\$204 million) to ¥725,433 million (\$6,254 million), and return on assets (operating income divided by average total assets for the period) was 9.5%, the same level as for the previous fiscal year.

Current liabilities increased ¥685 million (\$6 million) to ¥96,136 million (\$829 million), with the main factors being a decrease in income taxes payable of ¥7,057 million (\$61 million) to ¥7,635 million (\$66 million) and an increase in other current liabilities of ¥8,950 million (\$77 million) to ¥28,430 million (\$245 million).

Noncurrent liabilities increased ¥5,588 million (\$48 million) to ¥108,318 million (\$934 million). Net assets rose ¥17,389 million (\$150 million) to ¥520,978 million (\$4,491 million), due mainly to an increase in retained earnings and foreign currency translation adjustment. Equity attributable to owners of the parent amounted to ¥512,959 million (\$4,422 million), for an equity ratio of 70.7%.

Cash Flows from Operating Activities

Net cash provided by operating activities totaled ¥93,923 million (\$810 million). Cash provided included ¥60,512 million (\$522 million) from income before income taxes and noncontrolling interests and ¥41,555 million (\$358 million) from depreciation and amortization. Cash used included ¥3,080 million (\$27 million) due to an increase in inventories and a decrease

in notes and accounts payable – trade, and ¥24,412 million (\$210 million) in income taxes paid. Net cash provided by operating activities increased ¥695 million (\$6 million) compared with the previous fiscal year.

Cash Flows from Investing Activities

Net cash used in investing activities totaled ¥49,300 million. Proceeds from sale and redemption of investment securities provided cash of ¥3,551 million, while uses of cash included ¥49,992 million for purchase of tangible fixed assets and intangible fixed assets.

Cash Flows from Financing Activities

Net cash used in financing activities was ¥14,701 million (\$127 million). Cash provided included ¥691 million (\$6 million) from a net increase in loans and sale of treasury stock while uses of cash included cash dividends paid totaling ¥14,753 million (\$127 million).

In addition to the above factors, due to the effect of exchange rate changes on cash and cash equivalents, cash and cash equivalents at the end of the fiscal year increased ¥28,639 million (\$247 million) from the end of the previous fiscal year to ¥83,389 million (\$719 million).

Capital Expenditure

Capital investment by the Kuraray Group (Kuraray and consolidated subsidiaries) amounted to ¥53,608 million (\$462 million) in fiscal 2016, **mainly for expansion of production capacity for PVA resin**. By segment, capital investment amounted to ¥35,350 million (\$305 million) in the Vinyl Acetate segment, ¥2,070 million (\$18 million) in the Isoprene segment, ¥3,726 million (\$32 million) in the Functional Materials segment, ¥5,176 million (\$45 million) in the Fibers and Textiles segment, ¥114 million (\$1 million) in the Trading segment, and ¥2,548 million (\$22 million) in the Others segment. General (non-segment) capital investment amounted to ¥4,621 million (\$40 million).

Outlook for the Fiscal Year Ending December 31, 2017

Regarding the operating environment in fiscal 2017, the outlook for the global economy is increasingly unclear, with factors such as the policies of the new U.S. president, the issue of the United Kingdom's withdrawal from the European Union and national elections scheduled in major European countries. Amid these conditions, moderate economic recovery is expected in Japan. Business conditions in the United States are forecast to remain generally brisk, and in Europe, a moderate recovery is forecast to continue. In China, a continuation of the temporary calm is envisaged with the halt of the recession. In emerging countries, there are concerns about a continued slowdown in growth.

Until now, the Company's results benefited from cost reductions resulting from declines in raw material and fuel prices up to 2016. However, in fiscal 2017 prices of raw materials and fuel are expected to rise, with an accompanying increase in manufacturing costs. On the other hand, because a time lag arises in adjusting selling prices of products, there are concerns about continuing decreases in selling prices of some products in fiscal 2017.

Under the two years to date of GS-STEP (FY2015-FY2017), its medium-term management plan, the Company has been steadily implementing concrete measures for the five main management strategies put forth in the plan (deepening of core businesses, technological innovation, next-generation growth model, optimum allocation of management resources, and contribution to the environment). In fiscal 2017, which is the final year of GS-STEP, the Company will implement the remaining measures and to revise its strategies for businesses that are late in displaying results from the measures and businesses that require reconsideration due to changes in the market environment, which will lead to its next medium-term management plan that will begin in 2018.

Taking these circumstances into account, our forecasts for the period ending December 31, 2017 are net sales of ¥530.0 billion, operating income of ¥70.0 billion, ordinary income of ¥68.0 billion and net income attributable to owners of the parent of ¥42.0 billion. We assume average exchange rates of ¥110 to the U.S. dollar and ¥120 to the euro, as well as a domestic naphtha price of ¥36 thousand per kiloliter.

Risks that could have a significant impact on the Kuraray Group's performance (results of operations and financial position) are discussed below. Forward-looking statements in the following text represent the Kuraray Group's best judgment as of December 31, 2016.

1) Risks associated with the changes in business environment

The Kuraray Group has a diversified business portfolio and its products are geared to global markets with a variety of uses and applications. Many of our products are original specialty chemical materials that are less susceptible to the fluctuations in the commodity markets compared with those in other industries, but in recent years more and more of our products are geared to the growing business areas including electric and electronic materials, automotive and environmental applications on which our overall business performance is increasingly dependent. In these areas, market environment can undergo drastic changes as a result of a reverse in industry de facto standards for final products, shorter product cycles and worldwide competition in product development. Therefore, we may also face drastic changes in market environment and competitive conditions for our products.

Meanwhile, we manufacture products such as chemical products, synthetic resins, synthetic fibers and textiles out of the raw materials such as ethylene and other petrochemical products that are susceptible to the fluctuations in the markets of crude oil and natural gas. As a result, market fluctuations exceeding expectations could affect the Kuraray Group's business results.

The Kuraray Group is exposed to the risk that it will be forced to downsize or close down certain areas of its main businesses as a consequence of the changes in its business environment as described above.

2) Risks associated with accidents and disasters

The Kuraray Group has manufacturing facilities in Japan, Europe, North America, Asia and Australia. Many of these are large-scale chemical plants. We work to prevent accidents and disasters such as explosions, fires and leaks of toxic substances and to minimize injuries when they occur, and conduct risk management for important production plants by geographically spreading their locations and arranging property and casualty insurance on them. However, in the event of serious security incidents, release of pollutants or natural disasters, there are risks that could cause personal injury or property damage to employees or third parties, or damage to the assets of the Kuraray Group,

or halt of manufacturing operations for long periods.

In the event of accidents or disasters at suppliers who discharge such functions as providing important raw materials, facilities, maintenance parts and services, there are risks that could affect our product supply.

3) Risks associated with litigation and violation of laws and regulations

The Kuraray Group operates numerous businesses based on its proprietary technologies, posing the risks of serious infringement of its intellectual properties, or litigation involving its rights in the future.

Meanwhile, we are supplying many products that play significant roles in assuring the quality of the final products in areas such as automotive products, electric and electronic materials, medical products and food packaging. We have introduced a product quality management system at each major production base of the Kuraray Group and work to improve product quality, but in the event of a large-scale product recall caused by defective quality, there are risks of major financial losses including liability losses that cannot be fully covered by existing product liability insurance.

Also, despite our construction of a compliance system and our utmost efforts to comply with laws and regulations at each of our operating facilities, there are risks that our business activities could be interrupted in the event of a major breach of legal compliance, changes in current laws and regulations or the addition of new laws and regulations.

4) Risks associated with changes in exchange rates

The Kuraray Group is expanding its manufacturing and sales operations in Japan and in various overseas regions, including Europe, North America, Asia and Australia. Export prices of the Kuraray Group's domestically manufactured products are affected by changes in exchange rates. In sales of products manufactured at our overseas bases, procurement and sales prices in different currency blocks and the value of foreign-currency-denominated assets and liabilities are affected by changes in exchange rates. It is possible that the Kuraray Group will be affected negatively by exchange rate fluctuations if they exceed the scope of our assumption.

5) Other risks

With the global development of our businesses, there are risks that fortuitous external events such as war, riot, terrorism or an epidemic could disrupt our business activities.

Consolidated Balance Sheet

Kuraray Co., Ltd. and its Consolidated Subsidiaries

	Millions of yen		Thousands of U.S. dollars
	December 31, 2016	December 31, 2015	December 31, 2016
ASSETS			
I Current assets:			
1 Cash and deposits* ⁶	¥ 51,437	¥ 36,996	\$ 443,422
2 Notes and accounts receivable—trade* ⁷	105,010	102,079	905,258
3 Short-term investment securities.....	39,064	18,805	336,758
4 Merchandise and finished goods	73,504	77,582	633,655
5 Work-in-process	12,260	11,293	105,689
6 Raw materials and supplies	25,504	23,310	219,862
7 Deferred tax assets.....	5,974	7,598	51,500
8 Other	12,669	19,430	109,215
9 Allowance for doubtful accounts.....	(451)	(611)	(3,887)
Total current assets	324,974	296,486	2,801,500
II Noncurrent assets:			
1 Tangible fixed assets:			
(1) Buildings and structures, net* ^{2 and 6}	54,343	53,959	468,474
(2) Machinery, equipment and vehicles, net* ²	162,963	127,962	1,404,853
(3) Land* ^{2 and 6}	19,526	18,508	168,327
(4) Construction in progress	29,904	56,609	257,793
(5) Other, net* ²	5,090	4,978	43,879
Total tangible fixed assets * ¹	271,827	262,019	2,343,336
2 Intangible fixed assets:			
(1) Goodwill	26,256	28,564	226,344
(2) Customer-related assets	28,880	32,244	248,965
(3) Other	24,401	23,167	210,353
Total intangible fixed assets	79,537	83,976	685,663
3 Investments and other assets:			
(1) Investment securities* ^{3 and 6}	34,023	46,057	293,301
(2) Long-term loans receivable	260	239	2,241
(3) Net defined benefit assets.....	827	791	7,129
(4) Deferred tax assets.....	7,097	6,361	61,181
(5) Other.....	6,929	5,887	59,732
(6) Allowance for doubtful accounts.....	(43)	(50)	(370)
Total investments and other assets	49,093	59,287	423,215
Total noncurrent assets	400,458	405,284	3,452,224
TOTAL ASSETS	¥725,433	¥701,770	\$6,253,732

The accompanying notes are an integral part of the financial information.

	Millions of yen		Thousands of U.S. dollars
	December 31, 2016	December 31, 2015	December 31, 2016
LIABILITIES			
I Current liabilities:			
1 Notes and accounts payable–trade*7	¥ 36,424	¥ 38,331	\$ 314,000
2 Short-term loans payable*6	7,626	7,187	65,741
3 Accrued expenses	10,719	10,468	92,405
4 Income taxes payable	7,635	14,692	65,818
5 Provision for bonuses	5,296	5,259	45,655
6 Other provisions	4	31	34
7 Other*6 and 7	28,430	19,480	245,086
Total current liabilities	96,136	95,450	828,758
II Noncurrent liabilities:			
1 Bonds payable	10,000	10,000	86,206
2 Long-term loans payable*6	42,172	42,257	363,551
3 Deferred tax liabilities	25,442	24,102	219,327
4 Provision for directors' retirement benefits	209	185	1,801
5 Provision for environmental measures	3,580	353	30,862
6 Net defined benefit liabilities	11,542	11,247	99,500
7 Asset retirement obligations	4,192	3,615	36,137
8 Other	11,178	10,966	96,362
Total noncurrent liabilities	108,318	102,729	933,775
TOTAL LIABILITIES	204,454	198,180	1,762,534
NET ASSETS			
I Shareholders' equity:			
1 Capital stock	88,955	88,955	766,853
2 Capital surplus	87,178	87,147	751,534
3 Retained earnings	304,277	278,899	2,623,077
4 Treasury stock	(3,972)	(4,319)	(34,241)
Total shareholders' equity	476,439	450,682	4,107,232
II Accumulated other comprehensive income:			
1 Valuation difference on available-for-sale securities	10,913	10,808	94,077
2 Deferred gains or losses on hedges	(110)	(4)	(948)
3 Foreign currency translation adjustment	30,054	39,377	259,086
4 Remeasurements of defined benefit plans	(4,336)	(4,801)	(37,379)
Total accumulated other comprehensive income	36,520	45,380	314,827
III Subscription rights to shares	719	831	6,198
IV Noncontrolling interests	7,300	6,695	62,931
TOTAL NET ASSETS	520,978	503,589	4,491,189
TOTAL LIABILITIES AND NET ASSETS	¥725,433	¥701,770	\$6,253,732

The accompanying notes are an integral part of the financial information.

Consolidated Statement of Income and Consolidated Statement of Comprehensive Income

Kuraray Co., Ltd. and its Consolidated Subsidiaries

Consolidated Statement of Income

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016 (January 1, 2016 to December 31, 2016)	Fiscal 2015 (January 1, 2015 to December 31, 2015)	Fiscal 2016 (January 1, 2016 to December 31, 2016)
I Net sales	¥485,192	¥521,721	\$4,182,689
II Cost of sales ^{*2}	317,748	355,137	2,739,206
Gross profit.....	167,444	166,583	1,443,482
III Selling, general and administrative expenses:			
1 Selling expenses.....	27,238	27,249	234,810
2 General and administrative expenses ^{*2}	72,378	73,257	623,948
Total selling, general and administrative expenses ^{*1}	99,616	100,506	858,758
Operating income.....	67,827	66,077	584,715
IV Non-operating income:			
1 Interest income.....	223	239	1,922
2 Dividend income.....	2,695	2,741	23,232
3 Equity in earnings of an affiliate.....	1	0	8
4 Other.....	1,999	936	17,232
Total non-operating income	4,919	3,918	42,405
V Non-operating expenses:			
1 Interest expenses.....	739	724	6,370
2 Foreign exchange losses.....	774	435	6,672
3 Personnel expenses for seconded employees.....	666	687	5,741
4 Other.....	4,384	3,612	37,793
Total non-operating expenses	6,565	5,459	56,594
Ordinary income.....	66,181	64,535	570,525
VI Extraordinary income:			
1 Gain on reversal of asset retirement obligations.....	—	461	—
2 Gain on reversal of provision for environmental measures.....	—	342	—
3 Gain on sales of tangible fixed assets ^{*3}	—	278	—
Total extraordinary income	—	1,082	—
VII Extraordinary loss:			
1 Provision for environmental measures.....	3,293	—	28,387
2 Impairment loss ^{*4}	2,179	4,847	18,784
3 Loss on disposal of tangible fixed assets ^{*5}	196	425	1,689
4 Loss in construction for delay ^{*6}	—	964	—
5 Loss on valuation of investment securities.....	—	866	—
Total extraordinary loss	5,669	7,104	48,870
Income before income taxes.....	60,512	58,514	521,655
Income taxes—current.....	17,469	18,297	150,594
Income taxes for prior periods ^{*7}	—	1,497	—
Income taxes—deferred.....	1,838	2,252	15,844
Total income taxes	19,308	22,046	166,448
Net income	41,204	36,467	355,206
Net income attributable to noncontrolling interests.....	804	718	6,931
Net income attributable to owners of the parent	¥ 40,400	¥ 35,749	\$ 348,275

Consolidated Statement of Comprehensive Income

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016 (January 1, 2016 to December 31, 2016)	Fiscal 2015 (January 1, 2015 to December 31, 2015)	Fiscal 2016 (January 1, 2016 to December 31, 2016)
I Net income	¥41,204	¥36,467	\$355,206
II Other comprehensive income:			
1 Valuation difference on available-for-sale securities.....	105	1,531	905
2 Deferred gains or losses on hedges.....	(114)	(69)	(982)
3 Foreign currency translation adjustment.....	(9,221)	(7,521)	(79,491)
4 Remeasurements of defined benefit plans.....	464	267	4,000
Total other comprehensive income ^{*1}	(8,765)	(5,792)	(75,560)
III Comprehensive income	32,438	30,675	279,637
Comprehensive income attributable to			
1 Owners of the parent.....	31,642	29,956	272,775
2 Minority interests.....	796	718	6,862

The accompanying notes are an integral part of the financial information.

Consolidated Statement of Changes in Net Assets

Kuraray Co., Ltd. and its Consolidated Subsidiaries

	Millions of yen				
	Shareholders' equity				
	Capital stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Fiscal 2016 (January 1, 2016 to December 31, 2016)					
Balance at January 1, 2016	¥88,955	¥87,147	¥278,899	¥(4,319)	¥450,682
Changes of items during the period					
Cash dividends			(14,753)		(14,753)
Net income			40,400		40,400
Changes of scope of consolidation.....			(267)		(267)
Purchase of treasury stock				(5)	(5)
Disposal of treasury stock		30		353	383
Net changes of items other than shareholders' equity					—
Total changes of items during the period	—	30	25,378	347	25,756
Balance at December 31, 2016	¥88,955	¥87,178	¥304,277	¥(3,972)	¥476,439

	Millions of yen							
	Accumulated other comprehensive income					Subscription rights to shares	Noncontrolling interests	Total net assets
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income			
Balance at January 1, 2016	¥10,808	¥ (4)	¥39,377	¥(4,801)	¥45,380	¥ 831	¥6,695	¥503,589
Changes of items during the period								
Cash dividends								(14,753)
Net income								40,400
Changes of scope of consolidation.....								(267)
Purchase of treasury stock								(5)
Disposal of treasury stock								383
Net changes of items other than shareholders' equity	104	(105)	(9,323)	464	(8,859)	(112)	604	(8,367)
Total changes of items during the period	104	(105)	(9,323)	464	(8,859)	(112)	604	17,389
Balance at December 31, 2016	¥10,913	¥(110)	¥30,054	¥(4,336)	¥36,520	¥ 719	¥7,300	¥520,978

Fiscal 2016 (January 1, 2016 to December 31, 2016)	Thousands of U.S. dollars				
	Shareholders' equity				
	Capital stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance at January 1, 2016	\$766,853	\$751,267	\$2,404,301	\$(37,232)	\$3,885,189
Changes of items during the period					
Cash dividends			(127,181)		(127,181)
Net income			348,275		348,275
Changes of scope of consolidation			(2,301)		(2,301)
Purchase of treasury stock				(43)	(43)
Disposal of treasury stock		258		3,043	3,301
Net changes of items other than shareholders' equity					—
Total changes of items during the period	—	258	218,775	2,991	222,034
Balance at December 31, 2016	\$766,853	\$751,534	\$2,623,077	\$(34,241)	\$4,107,232

Fiscal 2016 (January 1, 2016 to December 31, 2016)	Thousands of U.S. dollars							
	Accumulated other comprehensive income							
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Subscription rights to shares	Noncontrolling interests	Total net assets
Balance at January 1, 2016	\$93,172	\$ (34)	\$339,456	\$(41,387)	\$391,206	\$7,163	\$57,715	\$4,341,284
Changes of items during the period								
Cash dividends								(127,181)
Net income								348,275
Changes of scope of consolidation								(2,301)
Purchase of treasury stock								(43)
Disposal of treasury stock								3,301
Net changes of items other than shareholders' equity	896	(905)	(80,370)	4,000	(76,370)	(965)	5,206	(72,129)
Total changes of items during the period	896	(905)	(80,370)	4,000	(76,370)	(965)	5,206	149,905
Balance at December 31, 2016	\$94,077	\$(948)	\$259,086	\$(37,379)	\$314,827	\$6,198	\$62,931	\$4,491,189

The accompanying notes are an integral part of the financial information.

Consolidated Statement of Changes in Net Assets

Fiscal 2015 (January 1, 2015 to December 31, 2015)	Millions of yen				
	Shareholders' equity				
	Capital stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance at January 1, 2015	¥88,955	¥87,181	¥285,561	¥ (38,110)	¥423,588
Changes of items during the period					
Cash dividends			(9,474)		(9,474)
Net income			35,749		35,749
Purchase of treasury stock				(10)	(10)
Disposal of treasury stock		84		745	830
Retirement of treasury stock		(33,054)		33,054	—
Transfer to capital surplus from retained earnings		32,936	(32,936)		—
Net changes of items other than shareholders' equity					—
Total changes of items during the period	—	(33)	(6,662)	33,790	27,094
Balance at December 31, 2015	¥88,955	¥87,147	¥278,899	¥ (4,319)	¥450,682

Fiscal 2015 (January 1, 2015 to December 31, 2015)	Millions of yen							
	Accumulated other comprehensive income					Subscription rights to shares	Noncontrolling interests	Total net assets
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income			
Balance at January 1, 2015	¥ 9,276	¥ 65	¥46,899	¥ (5,069)	¥51,172	¥ 977	¥6,087	¥481,826
Changes of items during the period								
Cash dividends								(9,474)
Net income								35,749
Purchase of treasury stock								(10)
Disposal of treasury stock								830
Retirement of treasury stock								—
Transfer to capital surplus from retained earnings								—
Net changes of items other than shareholders' equity	1,531	(69)	(7,521)	267	(5,792)	(145)	607	(5,331)
Total changes of items during the period	1,531	(69)	(7,521)	267	(5,792)	(145)	607	21,763
Balance at December 31, 2015	¥10,808	¥ (4)	¥39,377	¥ (4,801)	¥45,380	¥ 831	¥6,695	¥503,589

Consolidated Statement of Cash Flows

Kuraray Co., Ltd. and its Consolidated Subsidiaries

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016 (January 1, 2016 to December 31, 2016)	Fiscal 2015 (January 1, 2015 to December 31, 2015)	Fiscal 2016 (January 1, 2016 to December 31, 2016)
I Net cash provided by (used in) operating activities:			
1 Income before taxes and minority interests.....	¥ 60,512	¥ 58,514	\$ 521,655
2 Depreciation and amortization.....	41,555	44,102	358,232
3 Increase (decrease) in allowance for doubtful accounts.....	(160)	46	(1,379)
4 Gain on reversal of asset retirement obligations.....	—	(461)	—
5 Gain on reversal of provision for environmental measures.....	—	(342)	—
6 Loss on disposal of tangible fixed assets.....	196	425	1,689
7 Impairment loss.....	2,179	4,847	18,784
8 Provision for environmental measures.....	3,293	—	28,387
9 Foreign exchange losses (gains).....	1,281	664	11,043
10 Interest and dividends income.....	(2,919)	(2,981)	(25,163)
11 Interest expenses.....	739	724	6,370
12 Decrease (increase) in notes and accounts receivable—trade.....	(4,386)	1,526	(37,810)
13 Decrease (increase) in inventories.....	(1,645)	(6,617)	(14,181)
14 Increase (decrease) in notes and accounts payable—trade.....	(1,435)	(4,241)	(12,370)
15 Loss on valuation of investment securities.....	—	866	—
16 Increase (decrease) in provision for bonuses.....	130	325	1,120
17 Increase (decrease) in net defined benefit liabilities.....	264	885	2,275
18 Decrease (increase) in net defined benefit assets.....	(297)	(325)	(2,560)
19 Other, net.....	16,854	42	145,293
Sub-total.....	116,162	98,001	1,001,396
20 Interest and dividends income received.....	2,912	2,974	25,103
21 Interest expenses paid.....	(739)	(724)	(6,370)
22 Income taxes (paid) refund.....	(24,412)	(7,023)	(210,448)
Net cash provided by (used in) operating activities.....	93,923	93,228	809,681
II Net cash provided by (used in) investment activities:			
1 Purchase of investment securities.....	(489)	(2,196)	(4,215)
2 Proceeds from sales and redemption of investment securities.....	3,551	4,385	30,612
3 Purchase of tangible fixed assets and intangible fixed assets.....	(49,992)	(43,099)	(430,965)
4 Payments for disposal of tangible fixed assets and intangible fixed assets.....	(516)	(971)	(4,448)
5 Proceeds from sales of tangible fixed assets and intangible fixed assets.....	52	558	448
6 Purchase of shares of subsidiaries resulting in change in scope of consolidation ²	—	(5,564)	—
7 Proceeds from transfer of business.....	—	1,259	—
8 Payments for acquisition of business.....	—	(120)	—
9 Other, net.....	(1,905)	(2,804)	(16,422)
Net cash provided by (used in) investment activities.....	(49,300)	(48,553)	(425,000)
III Net cash provided by (used in) financing activities:			
1 Net increase (decrease) in short-term loans payable.....	495	(4,940)	4,267
2 Net increase (decrease) in commercial papers.....	—	(10,000)	—
3 Repayment of long-term loans payable.....	(142)	(144)	(1,224)
4 Purchase of treasury stock.....	(5)	(10)	(43)
5 Proceeds from sales of treasury stock.....	195	611	1,681
6 Cash dividends paid.....	(14,753)	(9,474)	(127,181)
7 Cash dividends paid to minority shareholders.....	(191)	(100)	(1,646)
8 Other, net.....	(299)	(294)	(2,577)
Net cash provided by (used in) financing activities.....	(14,701)	(24,353)	(126,732)
IV Effect of exchange rate changes on cash and cash equivalents.....	(1,514)	(958)	(13,051)
V Net increase (decrease) in cash and cash equivalents.....	28,407	19,362	244,887
VI Cash and cash equivalents, beginning of year.....	54,750	35,388	471,982
VII Increase in cash and cash equivalents from newly consolidated subsidiaries.....	231	—	1,991
VIII Cash and cash equivalents, end of year¹.....	¥ 83,389	¥ 54,750	\$ 718,870

The accompanying notes are an integral part of the financial information.

1 Significant Accounting Policies

1. Basis of presenting consolidated financial statements

The accompanying consolidated financial statements of Kuraray Co., Ltd. (the "Company") and its consolidated subsidiaries are prepared on the basis of accounting principles generally accepted in Japan, which are different in certain respects as to application and disclosure requirements of International Financial Reporting Standards, and are filed with the Japanese Ministry of Finance (the "MOF") as required by the Financial Instruments Exchange Law of Japan. The accompanying consolidated financial statements are translations of those filed with MOF.

Each amount in the consolidated financial statements and notes is rounded down to the nearest 1 million yen (in the case of the translation into the United States dollars, they have been rounded down to the nearest 1 thousand dollars).

The United States dollar amounts included herein are provided solely for the convenience of readers outside Japan and are stated, at the rate of ¥116=\$1, the approximate exchange rate prevailing on December 31, 2016. The translations should not be construed as representations that the Japanese yen amounts have been, could have been, or could in the future be, converted into the United States dollars at this or any other rate.

2. Scope of consolidation

(1) Number of consolidated subsidiaries

	Fiscal 2016	Fiscal 2015
Number of consolidated subsidiaries	38	36

(Major consolidated subsidiaries)

KURARAY TRADING Co., LTD., KURARAY CHEMICAL CO., LTD., Kuraray Plastics Co., Ltd., KURARAY ENGINEERING CO., LTD., KURARAY LIVING CO., LTD., Kuraray Techno Co., Ltd., KURARAYKURAFLEX CO., LTD., TECHNO SOFT CO., LTD., Kuraray Travel Service Corporation, KURARAY SAIJO CO., LTD., KURARAY TAMASHIMA COMPANY, LIMITED, Iruma Country Club Co., Ltd., KURASHIKI KOKUSAI HOTEL LTD., KURARAY FASTENING CO., LTD., OKAYAMA RINKOH CO., LTD., Kuraray Noritake Dental Inc., KURARAY AQUA CO., LTD., Kuraray Holdings U.S.A., Inc., Kuraray America, Inc., Kuraray Europe GmbH, EVAL Europe N.V., Kuraray Hong Kong Co., Ltd., Kuraray Asia Pacific Pte. Ltd., Kuraray (Shanghai) Co., Ltd., MonoSol Holdings, Inc., Kuraray China Co., Ltd., Kuraray Korea Ltd., Plantic Technologies Limited and 10 other consolidated subsidiaries.

During the fiscal year ended December 31, 2016, Kuraray Europe Moravia and Kuraray Dental Benelux

were added to the scope of consolidation due to their increased significance.

(2) Names of major unconsolidated subsidiaries

(Major unconsolidated subsidiaries)

Kuraray Okayama Spinning CO., LTD.

Kuraray South America Ltda.

(Reasons for excluding from the scope of consolidation)

The total assets, total sales and net income and loss (amount corresponding to the owned interest) and retained earnings (amount corresponding to the owned interest) of the unconsolidated subsidiaries have no material effect on the consolidated financial statements.

3. Scope of application of equity method affiliates and subsidiaries

(1) Number of unconsolidated subsidiaries accounted for using the equity method

	Fiscal 2016	Fiscal 2015
Number of unconsolidated subsidiaries accounted for using the equity method	1	1

(Name of unconsolidated subsidiaries)

Kuraray Okayama Spinning CO., LTD.

(2) Unconsolidated subsidiaries and affiliates (Hexin Kuraray Micro Fiber Leather (Jiaxing) Co., Ltd., and other affiliates) have not been accounted for using the equity method, because their net income and loss and retained earnings (amount corresponding to the owned interest) have no material effect on the consolidated financial statements.

4. Fiscal years of consolidated subsidiaries

The closing date of the consolidated subsidiaries is the same as the consolidated closing date.

5. Accounting policies

(1) Valuation standards and methods for significant assets

a) Investment securities

Available-for-sale securities for which a market price is available are stated at fair value at the year-end. (Net unrealized gains or losses on these securities are recorded as a separate component in "Net assets", net of tax amount. The cost of securities sold is determined based on the moving-average cost of all such securities held at the time of sale.) Other securities for which a market price is not available are stated at cost determined by the moving-average method.

- b) Derivative financial instruments
All derivatives are stated at fair value.
- c) Inventories
Finished goods, raw materials, and work-in-process are principally stated at the lower of cost determined by the weighted average method or net realizable value.
Supplies are principally stated at the lower of cost determined by the moving-average method or net realizable value.
- (2) Depreciation method of significant depreciable assets
- a) Tangible fixed assets (excluding lease assets)
Depreciation, except for buildings, is primarily computed using the declining-balance method over the estimated useful lives of the assets. However, depreciation for structures purchased on or after April 1, 2016 is computed using the straight-line method. The depreciation method for buildings is primarily computed using the straight-line method.
The estimated useful lives of assets are primarily as follows:
- Buildings and structures 31 to 50 years
 - Machinery, equipment and vehicles... 4 to 9 years
- b) Intangible assets (excluding lease assets)
Amortization is primarily computed using the straight-line method.
The numbers of years for amortization are primarily as follows:
- Goodwill..... 15 or 20 years
 - Customer-related assets..... 9 or 20 years
- However, minor amounts are charged or credited to income directly in the year of acquisition.
- c) Lease assets
Amortization is primarily computed using the straight-line method.
- (3) Accounting for significant allowance
- a) Allowance for doubtful accounts
The Company and its consolidated subsidiaries provide for doubtful accounts principally at an amount computed based on the historical bad debt ratio during a certain reference period plus an estimated uncollectible amount based on the analysis of certain individual accounts.
- b) Provision for bonuses
Provision for bonuses is stated at the estimated amount of the bonuses to be paid to employees based on services provided for the fiscal year.
- c) Provision for directors' retirement benefits
Some of the consolidated subsidiaries accrue the liabilities for their retirement benefits for directors and corporate auditors, which is, in general, based upon the amounts required by the subsidiaries' internal regulations.
- d) Provision for environmental measures
In order to provide for payments on disposal of waste polychlorinated biphenyl (PCB) removed from the noncurrent assets and stored, a provision is made based on the estimated disposal cost.
- (4) Accounting treatment of retirement benefit plan
- a) Method for attributing estimated retirement benefits to individual periods of service
In calculating benefit obligation, the benefit formula basis was used to attribute estimated retirement benefits to periods up to December 31, 2016.
- b) Calculation of net actuarial gain or loss and prior service cost
Prior service cost is amortized on a straight-line basis over a certain period (mainly 15 years), which falls within the average remaining years of service of the eligible employees. Actuarial gains or losses are amortized on a straight-line basis over a certain period (mainly 15 years), which falls within the average remaining years of service of the eligible employees, allocated proportionately commencing the year following the year in which each respective gain or loss occurred.
- c) Use of simplified method among small companies
Certain consolidated subsidiaries calculate retirement benefit liabilities and expenses using the simplified method that assumes their benefit obligation is equal to the benefits payable if all employees voluntarily retired at fiscal year-end.

(5) Significant hedge accounting

a) Hedge accounting

The Company and its consolidated subsidiaries adopt the method for hedging instruments whereby any gains or losses are deferred over the period of the hedging contract and are offset against the deferred losses or gains on the related hedged items. However, deferral hedge accounting is applied to forward foreign exchange contracts used to hedge foreign currency-denominated loans, and when an interest rate swap contract meets certain conditions, the net amount to be paid or received under the contract is added to or deducted from the interest on the hedged items.

b) Hedging instruments and hedged items

Hedging instruments	Hedged items
Forward foreign exchange contracts	Foreign currency-denominated loans Future transactions in foreign currency
Interest rate swap contracts	Interest expenses

c) Hedging policy

The Company and its consolidated subsidiaries use financial instruments to hedge interest rate fluctuation and exchange fluctuation risks in accordance with their internal policies and procedures.

d) Assessment method for hedge accounting

The Company identifies and confirms the material conditions and measures the effectiveness of forward foreign exchange contracts associated with planned transactions denominated in foreign currencies.

Measurement of hedge effectiveness is not considered necessary for forward foreign exchange contracts that meet the requirements for deferral hedge accounting and interest rate swaps that meet the requirements for special accounting because the Company identifies and confirms the material conditions at the time of transaction.

(6) Amortization of goodwill

The Company amortizes goodwill using the straight-line method over the estimated period of benefit with the exception of minor amounts, which are charged or credited to income directly in the year of acquisition.

(7) Cash and cash equivalents

Cash and cash equivalents include all highly liquid investments with a maturity of three months or less, that are readily convertible to known amounts of cash which are subject to an insignificant risk of changes in value.

(8) Other accounting policies

Accounting for consumption tax

Consumption tax and local consumption tax on goods and services are not included in the revenue and expenses amounts.

2 Changes in Accounting Policies

1. Application of Accounting Standard for Business Combinations

On September 13, 2013, the Accounting Standards Board of Japan (ASBJ) issued ASBJ Statement No. 21 "Revised Accounting Standard for Business Combinations," ASBJ Statement No. 22 "Revised Accounting Standard for Consolidated Financial Statements," and ASBJ Statement No. 7 "Revised Accounting Standard for Business Divestitures." These revised accounting standards are applied from the fiscal year ended December 31, 2016, whereby differences

resulting from changes in ownership interest in a subsidiary when control over the subsidiary is retained are recorded under capital surplus, and costs related to acquisition of increased ownership interest are recognized in the period in which they arise. Also, transitional accounting is applied to business combinations performed on or after the beginning of the fiscal year ended December 31, 2016, with revision of purchase price allocation applied to the consolidated financial statements during the fiscal year in which the date of the business combination occurs. The presentation method of net

income was amended, and “minority interests” were changed to “noncontrolling interests.” For comparison purposes, information for the fiscal year ended December 31, 2015 is shown in accordance with the new standards in the accompanying consolidated financial statements.

Transitional accounting in accordance with Article 58, Paragraph 2, Item 4, of ASBJ Statement No. 21, Article 44, Paragraph 5, Item 4, of ASBJ Statement No. 22, and Article 57, Paragraph 4, Item 4, of ASBJ Statement No. 7 is applied from the beginning of the fiscal year ended December 31, 2016.

The consolidated statements of cash flows for the fiscal year ended December 31, 2016 have been changed to a method in which cash flows related to the acquisition or sale of stock of subsidiaries not associated with a change in the scope of consolidation is presented under “Net cash provided by (used in) financing activities” and cash flows related to expenses for acquisition of stock of subsidiaries associated with a change in the scope of consolidation or expenses incurred in connection

with the acquisition or sale of stock of subsidiaries not associated with a change in the scope of consolidation is presented under “Net cash provided by (used in) operating activities.”

These changes have no effect on the consolidated financial statements or per share information for the fiscal year ended December 31, 2016.

2. Change in Depreciation Method Due to Tax Reforms

The ASBJ issued PITF No. 32 “Practical Solution on a change in depreciation method due to Tax Reform 2016” on June 17, 2016. This revised accounting standard is applied from the fiscal year ended December 31, 2016. The Company has switched the method of depreciation for structures purchased on or after April 1, 2016, from the declining-balance method to the straight-line method.

The effect of this change on operating income, ordinary income and income before taxes and noncontrolling interests for the fiscal year ended December 31, 2016 is immaterial.

3 Accounting Standards Issued but Not Yet Applied

1. Implementation Guidance on Recoverability of Deferred Tax Assets

“Implementation Guidance on Recoverability of Deferred Tax Assets” (ASBJ Guidance No. 26, March 28, 2016)

(1) Outline

The Guidance basically follows the framework used in Japanese Institute of Certified Public Accountants (JICPA) Auditing Guidance No. 66, “Auditing Treatment for Judgment of Recoverability of Deferred Assets,” namely that the amount of deferred tax assets is assessed based on five categories of business entities, with the following necessary changes in accounting treatment.

- ① Treatment of business entities that do not meet any of the requirements of Category 1 through Category 5
- ② Matters of classification related to Category 2 and Category 3
- ③ Treatment of unscheduled deductible temporary

differences of business entities in Category 2

- ④ Treatment of reasonably estimable period for taxable income before taxable or deductible temporary differences of business entities in Category 3
- ⑤ Treatment in cases where business entities that meet the requirements of Category 4 qualify as Category 2 or Category 3

(2) Expected Application Date

The Company plans to apply this accounting standard from the beginning of the fiscal year ending December 31, 2017.

(3) Effect of Applying the Accounting Standard

The Company is currently assessing the effect of applying the accounting standards in preparing the financial statements for the fiscal year ended December 31, 2016.

4 Changes in Presentation

(Consolidated Statement of Income)

From fiscal 2016, “Foreign exchange losses,” which was included in “Other” under “Non-operating expenses” in the previous fiscal year, is presented separately because its amount is more than 10/100 of total non-operating expenses. The financial statements for the previous fiscal year have been

restated to reflect this change in presentation method.

As a result, ¥4,048 million presented in the Consolidated Statement of Income for the previous fiscal year as “Other” under “Non-operating expenses” was reclassified as ¥435 million in “Foreign exchange loss” and ¥3,612 million in “Other.”

5 Changes in Accounting Estimates

(Provision for Environmental Measures)

In the fiscal year ended December 31, 2016, in addition to provision recorded previously for expenses of disposal of PCB wastes, it became possible to rationally estimate expenses for disposal of other PCB wastes, and such

expenses are recorded under extraordinary loss as provision for environmental measures.

As a result of this change in estimate, income before income taxes decreased by ¥3,293 million (US\$28,387 thousand) in the fiscal year ended December 31, 2016.

6 Additional Information

In January 2016, the European Commission ruled that a preferential tax treatment scheme under the tax law of Belgium, which Kuraray's Belgian subsidiary had applied in prior fiscal years, was an illegal state aid, and ordered the Belgian government to charge additional taxes to recover the amount that had previously been exempted. The Belgian government had already filed an appeal against the European Commission's decision, and the Belgian subsidiary also appealed the decision in July 2016.

In fiscal 2015, Kuraray's Belgian subsidiary recorded the estimated amount based on the possible exposures to additional income tax payments, which was ¥2,994 million, taking into consideration the final tax burden risk. The subsidiary changed this estimate in accordance with a decision by the Belgian government in December 2016 regarding the amount of the additional tax levy. The effect of this change in the fiscal year ended December 31, 2016 is immaterial.

7 Notes to Consolidated Balance Sheet

*1. Accumulated depreciation of tangible fixed assets

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Accumulated depreciation of tangible fixed assets	¥684,246	¥656,351	\$5,898,672

*2. Accumulated amount of reduced-value entry as a result of receiving government subsidies, and so on that are subtracted from the acquisition price of tangible fixed assets

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Buildings and structures	¥2,094	¥2,094	\$18,051
Machinery, equipment and vehicles	1,509	997	13,008
Land	1,257	1,257	10,836
Other	30	36	258
(Deduction for this fiscal year)	(0)	(—)	(0)

*3. Investments in unconsolidated subsidiaries and affiliates

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Investment securities (equity)	¥5,632	¥8,359	\$48,551

*4. Commitments and contingencies

The Company is contingently liable for guarantees for bank loans of unconsolidated subsidiaries, affiliates and others.
The company names and the guarantees of their liabilities are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Social welfare corporation Ishii Kinen Aizenen (Joint and several guarantee).....	¥1,052	¥1,183	\$9,068
Kuraray India Private Limited	48	—	413
Total	¥1,100	¥1,183	\$9,482

*5. Additional payment under share purchase agreement

The acquisition of Plantic Technologies Limited and subsidiaries includes an earn-out provision, whereby, based on specified performance targets, up to an additional \$86.7 million may be required to be paid.

*6. Assets pledged as collateral and secured liabilities

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Cash and deposits	¥ —	¥ 61	\$ —
Investment securities*	46	46	396
Buildings	747	721	6,439
Land	1,001	1,001	8,629
Total	¥1,794	¥1,831	\$15,465

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Other (Current liabilities)	¥ —	¥ 18	\$ —
Collateral for short-term loans	180	195	1,551
Collateral for long-term loans	13	13	112
Total	¥193	¥226	\$1,663

* The above investment securities have been provided as collateral for loans of Mizushima Eco-works Co., Ltd.

*7. Accounting for notes with maturity dates at fiscal year-end

Notes with maturity dates at fiscal year-end and fixed-date cash settlements (a method of cash settlement on the same terms as notes) are accounted for and settled as of the date of maturity. As the fiscal year-end fell on a bank holiday, the following amounts of notes and accounts receivable and payable with maturity dates at fiscal year-end were accounted for and settled as of the date of maturity.

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Notes and accounts receivable—trade.....	¥5,453	¥5,827	\$47,008
Notes and accounts payable—trade.....	3,108	3,455	26,793
Other (Current liabilities)	266	491	2,293

8 Notes to Consolidated Statement of Income

*1. Major items and the amounts under "Selling, general and administrative expenses" are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Freight and storage.....	¥18,996	¥18,907	\$163,758
Research and development	18,536	18,295	159,793
Salaries and legal welfare expense.....	18,420	18,117	158,793
Provision for bonuses	5,062	5,190	43,637
Retirement benefit expenses	1,454	1,605	12,534
Provision for directors' retirement benefits	12	26	103

*2. Research and development expenses included in general, administrative and current manufacturing expenses

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
	¥19,830	¥19,132	\$170,948

*3. Gain on sales of tangible fixed assets

Attributable to sales of land and building of a subsidiary.

*4. Impairment loss

The significant component of impairment loss is as follows:

Fiscal 2016

Location	Assets	Usage	Type	Impairment loss	
				Millions of yen	Thousands of U.S. dollars
Saijo City, Ehime Prefecture Kamisu City, Ibaraki Prefecture	Business assets	Assets for E&E materials business	Machinery and equipment	¥942	\$8,120
U.S.A.	Business assets	Result of research and development activities related to industrial-use film	In-process research and development	489	4,215

Fiscal 2015

Location	Assets	Usage	Type	Impairment loss	
				Millions of yen	Thousands of U.S. dollars
Iruma-gun, Saitama Prefecture	Business assets	Golf course	Buildings and land	¥4,302	
U.S.A.	Business assets	Result of research and development activities related to industrial-use film	In-process research and development	544	

(Identifying the cash-generating unit to which an asset belongs)

As a minimum unit for generating cash flow, business assets are grouped into sections used for management accounting, and leased assets, idle assets, and assets associated with discontinued or reorganized businesses are assessed individually.

Other head office and research facilities are shared assets.

(Method for calculating the recoverable amount)

After separately examining the indications for impairment with respect to those businesses whose income from operations continues to be negative, for businesses whose recoverable amount falls short of the book value, the book value is to be reduced to the recoverable amount. The recoverable amount is measured based on the value in use, and is calculated by discounting expected future cash flows at a rate of 4%.

Idle assets are categorized into "assets held for sale," "assets that can be put to use in other businesses" and "assets to be discarded" and for items to be sold or discarded, the net book value of the assets is to be reduced to their recoverable amount. The recoverable amount of the assets is measured based on the net sale price and calculated by deducting the estimated disposal cost from the estimated sale price.

*5. Expense for removing equipment rendered unnecessary by business closure, etc.

*6. Loss in construction for delay

Fixed expenses incurred during the delay of the construction of the PVA resin manufacturing facility in the United States, which did not contribute to business.

*7. Income taxes for prior periods

The European Commission has issued a ruling that a preferential tax treatment scheme under the tax law of Belgium, which a Belgian subsidiary has applied in prior fiscal years, is illegal under European Union law. Upon the decision of the European Commission, the Belgian subsidiary recorded the estimated amount based on the possible exposures to additional income tax payments, which is ¥2,994 million (US\$25,810 thousand), with the consideration of the final tax burden risk.

9 Notes to Consolidated Statement of Comprehensive Income

Reclassification adjustments and tax effect adjustments relating to other comprehensive income (loss) for the fiscal years ended December 31, 2016 and December 31, 2015, are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Valuation difference on available-for-sale securities			
Amount recorded during the period	¥ (617)	¥ 1,640	\$ (5,318)
Reclassification adjustments	384	78	3,310
Before tax effect adjustments	(232)	1,719	(2,000)
Tax effect	337	(187)	2,905
Valuation difference on available-for-sale securities	105	1,531	905
Deferred gains or losses on hedges			
Amount recorded during the period	(205)	12	(1,767)
Reclassification adjustments	34	(120)	293
Before tax effect adjustments	(170)	(107)	(1,465)
Tax effect	56	37	482
Deferred gains or losses on hedges	(114)	(69)	(982)
Foreign currency translation adjustment			
Amount recorded during the period	(9,221)	(7,521)	(79,491)
Reclassification adjustments	—	—	—
Before tax effect adjustments	(9,221)	(7,521)	(79,491)
Tax effect	—	—	—
Foreign currency translation adjustment.....	(9,221)	(7,521)	(79,491)
Remeasurements of defined benefit plans			
Amount recorded during the period	(490)	(830)	(4,224)
Reclassification adjustments	1,229	1,431	10,594
Before tax effect adjustments	739	600	6,370
Tax effect	(274)	(333)	(2,362)
Remeasurements of defined benefit plans.....	464	267	4,000
Total other comprehensive income.....	¥(8,765)	¥(5,792)	\$(75,560)

10 Notes to Consolidated Statement of Changes in Net Assets

Fiscal 2016

1. Type and number of issued shares of common stock and treasury stock

	Number of shares as of December 31, 2015 (Thousands of shares)	Increase in the number of shares (Thousands of shares)	Decrease in the number of shares (Thousands of shares)	Number of shares as of December 31, 2016 (Thousands of shares)
Number of outstanding shares				
Common stock	354,863	—	—	354,863
Total	354,863	—	—	354,863
Number of treasury stocks				
Common stock ^(Notes 1, 2)	3,658	3	299	3,363
Total	3,658	3	299	3,363

Notes: 1. The increase in treasury stock (common stock) is attributable to the purchase of less-than-one unit shares (3 thousand shares).

2. The decrease in treasury stock (common stock) is attributable to a transfer of shares upon the exercise of subscription rights (299 thousand shares) and the acquisition of less-than-one unit shares by the shareholders (0 thousand shares).

2. Subscription rights to shares

The Company granted its directors, executive officers, employees, and directors and employees of its subsidiaries subscription rights to the Company shares as stock options. The balance of the subscription rights to shares as of December 31, 2016 is ¥719 million (US\$6,198 thousand).

3. Dividends

(1) Amount of dividends paid

Resolution	Type of share	Amount of dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
General shareholders' meeting held on March 29, 2016	Common stock	¥7,726 (US\$66,603 thousand)	¥22.00 (US\$1.89)	December 31, 2015	March 30, 2016
Board of directors' meeting held on August 4, 2016	Common stock	¥7,027 (US\$60,577 thousand)	¥20.00 (US\$1.72)	June 30, 2016	September 1, 2016

(2) Dividends whose effective date is after the end of Fiscal 2016 and record date is included in Fiscal 2016.

Resolution	Type of share	Amount of dividends (Millions of yen)	Source of dividends	Dividend per share (Yen)	Record date	Effective date
General shareholders' meeting held on March 24, 2017	Common stock	¥7,381 (US\$63,629 thousand)	Retained earnings	¥21.00 (US\$1.81)	December 31, 2016	March 27, 2017

Fiscal 2015

1. Type and number of issued shares of common stock and treasury stock

	Number of shares as of December 31, 2014 (Thousands of shares)	Increase in the number of shares (Thousands of shares)	Decrease in the number of shares (Thousands of shares)	Number of shares as of December 31, 2015 (Thousands of shares)
Number of outstanding shares				
Common stock	382,863	—	28,000	354,863
Total	382,863	—	28,000	354,863
Number of treasury stocks				
Common stock ^(Notes 1, 2)	32,283	6	28,631	3,658
Total	32,283	6	28,631	3,658

Notes: 1. The increase in treasury stock (common stock) is attributable to the purchase of less-than-one unit shares (6 thousand shares).

2. The decrease in treasury stock (common stock) is attributable to retirement of treasury stock (28,000 thousand shares), a transfer of shares upon the exercise of subscription rights (631 thousand shares) and the acquisition of less-than-one unit shares by the shareholders (0 thousand shares).

2. Subscription rights to shares

The Company granted its directors, executive officers, employees, and directors and employees of its subsidiaries subscription rights to the Company shares as stock options. The balance of the subscription rights to shares as of December 31, 2015 is ¥831 million.

3. Dividends

(1) Amount of dividends paid

Resolution	Type of share	Amount of dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
General shareholders' meeting held on March 27, 2015	Common stock	¥3,155	¥ 9.00	December 31, 2014	March 30, 2015
Board of directors' meeting held on August 6, 2015	Common stock	¥6,319	¥18.00	June 30, 2015	September 1, 2015

(2) Dividends whose effective date is after the end of Fiscal 2015 and record date is included in Fiscal 2015.

Resolution	Type of share	Amount of dividends (Millions of yen)	Source of dividends	Dividend per share (Yen)	Record date	Effective date
General shareholders' meeting held on March 29, 2016	Common stock	¥7,726	Retained earnings	¥22.00	December 31, 2015	March 30, 2016

11 Notes to Consolidated Statement of Cash Flows

*1. Cash and cash equivalents at December 31, 2016 and December 31, 2015 are reconciled to the accounts reported in the consolidated balance sheet as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Cash on hand and in banks.....	¥51,437	¥36,996	\$443,422
Time deposits with a deposit period of 3 months or more	(1,048)	(1,051)	(9,034)
Marketable securities with original maturities of 3 months or less.....	32,999	18,805	284,474
Cash and cash equivalents	¥83,389	¥54,750	\$718,870

*2. Breakdown of assets and liabilities of companies that became newly consolidated subsidiaries through acquisition of shares

Fiscal 2015

Plantic Technologies Limited and its subsidiaries were newly added to consolidation through acquisition of shares. The relationships between the breakdown of assets and liabilities of the corporation at the time of the acquisition, the acquisition price of Plantic Technologies Limited and cost of the acquisition are as follows:

	Millions of yen
Current assets	¥1,362
Noncurrent assets	2,743
Goodwill.....	2,457
Current liabilities	(543)
Noncurrent liabilities	(414)
Purchase price	5,604
Cash and cash equivalents	(40)
Expenditure for purchase.....	¥5,564

12 Leases

1. Finance lease transactions

(1) Lease transactions as a lessee

Finance leases without transfer of ownership

1) Details of lease assets

a) Tangible fixed assets

Mainly vehicles used at plants, including forklifts, buildings and equipment, etc., related to manufacturing ("Machinery and Equipment", "Buildings and Structures"), OA equipment, including personal computers and printers, and servers ("Other").

b) Intangible fixed assets

Software ("Other")

2) Depreciation method of lease assets

As described in the basis of presenting consolidated financial statements "1. Significant Accounting Policies, 5. Accounting policies (2) Depreciation method of significant depreciable assets"

(2) Lease transactions as a lessor

Finance lease transactions without transfer of ownership that commenced on or before March 31, 2008 are accounted for on a basis similar to operating leases. The details of such transactions are as follows.

Disclosure of finance lease transactions which commenced on or after April 1, 2008 is omitted due to less materiality.

1) Lease acquisition costs, accumulated depreciation and net book value as of December 31, 2016 and December 31, 2015 are as follows:

December 31, 2016

	Millions of yen		
	Acquisition cost	Accumulated depreciation	Net book value
Buildings and structures	¥197	¥101	¥95
Total	¥197	¥101	¥95

	Thousands of U.S. dollars		
	Acquisition cost	Accumulated depreciation	Net book value
Buildings and structures	\$1,698	\$870	\$818
Total	\$1,698	\$870	\$818

December 31, 2015

	Millions of yen		
	Acquisition cost	Accumulated depreciation	Net book value
Buildings and structures	¥197	¥98	¥99
Total	¥197	¥98	¥99

2) Future lease payment obligations at December 31, 2016 and December 31, 2015 are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Due within one year	¥13	¥13	\$112
Due after one year	56	69	482
Total	¥69	¥83	\$594

3) Lease revenue and depreciation expense for the years ended December 31, 2016 and December 31, 2015 are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Lease revenue	¥13	¥13	\$112
Depreciation expense	3	3	25

2. Operating leases

Lease transactions as a lessee:

Future lease payment obligations under operating leases at December 31, 2016 and December 31, 2015 are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Due within one year	¥ 2,396	¥ 2,309	\$ 20,655
Due after one year	9,465	10,252	81,594
Total	¥11,862	¥12,561	\$102,258

13 Financial Instruments

1. Outline of financial instruments

(1) Policy for financial instruments

The Group raises funds necessary to conduct its business mainly through bank loans or issuance of bonds. Temporary cash surpluses, if any, are invested in low risk financial assets. Derivatives are used, not for speculative purposes, but to manage exposure to financial risks as described below.

(2) Nature and extent of risks arising from financial instruments

Receivables such as notes and accounts receivable—trade are exposed to customer credit risk. Trade receivables denominated in foreign currencies are exposed to foreign currency exchange fluctuation risk.

Short-term investment securities and investment securities, mainly consisting of beneficiary securities on investment trusts, certificates of deposit and others held for management of capital surpluses and stocks in companies with which the Company has a business relationship are exposed to the risk of market price fluctuations.

Payment terms of payables, such as notes and accounts payable—trade, are mostly less than one year. Payables in foreign currencies incurred mainly from import of raw materials are exposed to foreign currency exchange fluctuation risk. Those risks are mostly offset by receivable balances denominated in the same foreign currency.

Loans, bonds and lease obligations related to finance lease transactions, used to raise funds for working capital and capital expenditures, have maturities of at the longest 30 years from the balance sheet date. The debts bearing floating interest rates are exposed to interest rate fluctuation risk, although a part of the exposure is hedged through use of derivatives (interest rate swaps).

Derivative transactions include forward foreign currency contracts and currency swaps for the purpose of hedging foreign currency exchange fluctuation risk resulting from receivables and payables denominated in foreign currencies and interest rate swaps for the purpose of hedging interest rate fluctuation risk resulting from variable interest expenses on debts. Please refer to “(5) Significant hedge accounting” under “1. Significant Accounting Policies, 5. Accounting policies” for a description of the Company’s accounting policy relating to hedging activities.

(3) Risk management for financial instruments

a. Credit Risk Management (customers’ default risk)

The Company manages and mitigates customer credit risk from trade receivables on the basis of internal rules concerning credit management, which include monitoring of payment terms and balances of customers to identify default risk at an early stage. With respect to loan receivables and liability guarantee agreements, the Company manages its exposure to credit risk by periodically identifying the financial position of the debtors. With respect to financial assets held for managing

capital surplus, its credit risk is minimal because the investments are limited to issuers with high credit ratings in accordance with internal rules concerning fund management. The Company enters into derivative transactions only with financial institutions that have high credit ratings in order to mitigate counterparty risks.

b. *Market Risk Management (foreign currency exchange and interest rate fluctuation risks)*

The Company and certain consolidated subsidiaries principally use forward foreign exchange contracts to hedge foreign currency exchange fluctuation risk exposure in connection with trade receivables and payables denominated in foreign currencies. Depending on foreign currency exchange rate conditions, trade receivables and payables denominated in foreign currencies that are expected to be generated based on export and import forecasts are hedged using forward foreign exchange contracts with limited contract periods of around half a year. The Company also hedges certain scheduled nontrading transactions denominated in foreign currencies that it expects to generate.

In addition, the Company uses currency swap and interest rate swap contracts to mitigate foreign currency exchange fluctuation risk exposure in connection with long-term loans receivable in foreign currencies and interest rate fluctuation risk exposure in connection with long-term loans payable.

With respect to short-term investment securities and investment securities, the Company periodically monitors fair values or financial status of the related issuers. With respect to stocks in companies with which the Company has a business relationship, the Company continuously checks the necessity for holding them, taking into account the business relationship.

The Company manages derivative transactions in accordance with internal rules that regulate delegation of authority concerning derivative transactions.

c. *Liquidity Risk Management on Fund Raising*

Liquidity risk comprises the risk that the Group cannot meet its contractual obligations in full at the respective maturity dates. The Group manages its liquidity risk by diversifying its fund raising instruments, obtaining commitment lines from several financial institutions and adjusting short-term and long-term funding balances in consideration of market environments.

(4) Supplementary explanation concerning fair values of financial instruments

Fair values of financial instruments comprise values determined based on market prices and values determined reasonably when there is no market price. Since variable factors are incorporated in computing the relevant fair values, such fair values may vary depending on the different assumptions. The notional amounts and other information described in Note 15.

“Derivative Financial Instruments” are not indicative of market risk exposure to derivative transactions.

2. Fair values of financial instruments

Carrying amount, fair value and unrealized gain/loss of the financial instruments as of December 31, 2016 and December 31, 2015 are as follows: Financial instruments whose fair values are not readily determinable are excluded from the following table:

Fiscal 2016

	Millions of yen		
	Carrying amount	Fair value	Unrealized gain (loss)
(1) Cash and deposits	¥ 51,437	¥ 51,437	¥ —
(2) Notes and accounts receivable—trade.....	105,010		
Allowance for doubtful accounts	(451)		
	104,559	104,559	—
(3) Short-term investment securities and investment securities			
Available-for-sale securities	64,525	64,525	—
Total assets.....	220,522	220,522	—
(1) Notes and accounts payable—trade.....	36,424	36,424	—
(2) Long-term loans payable ^{(*)1}	42,257	44,035	1,777
Total liabilities.....	78,681	80,459	1,777
Derivative transactions ^{(*)2}	(5,836)	(5,836)	—

	Thousands of U.S. dollars		
	Carrying amount	Fair value	Unrealized gain (loss)
(1) Cash and deposits	\$ 443,422	\$ 443,422	\$ —
(2) Notes and accounts receivable—trade.....	905,258		
Allowance for doubtful accounts	(3,887)		
	901,370	901,370	—
(3) Short-term investment securities and investment securities			
Available-for-sale securities	556,250	556,250	—
Total assets.....	1,901,051	1,901,051	—
(1) Notes and accounts payable—trade.....	314,000	314,000	—
(2) Long-term loans payable ^{(*)1}	364,284	379,612	15,318
Total liabilities.....	678,284	693,612	15,318
Derivative transactions ^{(*)2}	(50,310)	(50,310)	—

Fiscal 2015

	Millions of yen		
	Carrying amount	Fair value	Unrealized gain (loss)
(1) Cash and deposits	¥ 36,996	¥ 36,996	¥ —
(2) Notes and accounts receivable—trade.....	102,079		
Allowance for doubtful accounts	(611)		
	101,467	101,467	—
(3) Short-term investment securities and investment securities			
Available-for-sale securities	53,285	53,285	—
Total assets.....	191,749	191,749	—
(1) Notes and accounts payable—trade.....	38,331	38,331	—
(2) Long-term loans payable ^{(*)1}	42,405	44,177	1,772
Total liabilities.....	80,736	82,508	1,772
Derivative transactions ^{(*)2}	816	816	—

(*1) Long-term loans payable include the current portion of long-term loans payable.

(*2) Receivables and payables incurred as a result of derivative transactions are presented on a net basis. Net payables are presented in parentheses.

Notes: 1. Calculation method of fair values of financial instruments and securities and derivative transactions

Assets:

(1) Cash and deposits and (2) Notes and accounts receivable—trade

These assets are recorded using book values because fair values approximate book values because of their short-term maturities.

(3) Short-term investment securities and investment securities

The fair values of these assets are determined using the quoted market price on applicable stock exchanges. Other instruments are determined using the quoted price obtained from financial institutions.

Liabilities:

(1) Notes and accounts payable—trade

These payables are recorded using book values because fair values approximate book values because of their short-term maturities.

(2) Long-term loans payable

The fair values of long-term loans payable are determined by discounting the aggregated values of the principal and interest using an assumed interest rate based on the interest rate that would be applied to a new loan of a similar nature.

Long-term loans payable bearing floating interest rates are hedged using interest rate swap contracts and the fair values of these loans payable are determined by discounting the aggregated values of the principal and interest accounted for together with the related interest rate swap contracts using a reasonably estimated interest rate based on the interest rate that would be applied to a new loan of a similar nature.

Derivative financial instruments:

Please see Note 15. "Derivative Financial Instruments."

2. Financial instruments whose fair values are not readily determinable

Category	Millions of yen		Thousands of U.S. dollars
	Carrying amount		Carrying amount
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Unlisted equity securities	¥8,562	¥11,577	\$73,810

These items are not included in "(3) Short-term investment securities and investment securities," because there is no market price, future cash flows cannot be estimated and it is very difficult to identify fair values.

3. Redemption schedule of monetary assets and securities with contractual maturities

Fiscal 2016

	Millions of yen			
	Within one year	One to five years	Five to ten years	Over ten years
Cash and deposits	¥ 51,437	¥—	¥—	¥—
Notes and accounts receivable-trade.....	105,010	—	—	—
Short-term investment securities and investment securities:				
o/w Securities with contractual maturities:				
(1) Bonds (Corporate).....	9,000	—	—	—
(2) Bonds (Others)	—	—	—	—
(3) Others.....	30,000	—	—	—
Total	¥195,448	¥—	¥—	¥—

	Thousands of U.S. dollars			
	Within one year	One to five years	Five to ten years	Over ten years
Cash and deposits	\$ 443,422	\$—	\$—	\$—
Notes and accounts receivable-trade.....	905,258	—	—	—
Short-term investment securities and investment securities:				
o/w Securities with contractual maturities:				
(1) Bonds (Corporate)	77,586	—	—	—
(2) Bonds (Others)	—	—	—	—
(3) Others	258,620	—	—	—
Total	\$1,684,896	\$—	\$—	\$—

Fiscal 2015

	Millions of yen			
	Within one year	One to five years	Five to ten years	Over ten years
Cash and deposits	¥ 36,996	¥ —	¥—	¥—
Notes and accounts receivable-trade.....	102,079	—	—	—
Short-term investment securities and investment securities:				
o/w Securities with contractual maturities:				
(1) Bonds (Corporate)	—	6,000	—	—
(2) Bonds (Others)	—	—	—	—
(3) Others	15,000	3,019	—	—
Total	¥154,075	¥9,019	¥—	¥—

4. Redemption schedule of bonds, long-term loans payable and lease obligations after the balance sheet date:

Fiscal 2016

	Millions of yen					
	Within one year	One to two years	Two to three years	Three to four years	Four to five years	Over five years
Bonds	¥ —	¥ —	¥ —	¥ —	¥10,000	¥ —
Long-term loans payable.....	85	72	12,050	33	15	30,000
Lease obligations	363	305	245	198	150	626
Total	¥448	¥377	¥12,295	¥231	¥10,166	¥30,626

	Thousands of U.S. dollars					
	Within one year	One to two years	Two to three years	Three to four years	Four to five years	Over five years
Bonds	\$ —	\$ —	\$ —	\$ —	\$86,206	\$ —
Long-term loans payable.....	732	620	103,879	284	129	258,620
Lease obligations	3,129	2,629	2,112	1,706	1,293	5,396
Total	\$3,862	\$3,250	\$105,991	\$1,991	\$87,637	\$264,017

Fiscal 2015

	Millions of yen					
	Within one year	One to two years	Two to three years	Three to four years	Four to five years	Over five years
Bonds	¥ —	¥ —	¥ —	¥ —	¥ —	¥10,000
Long-term loans payable.....	147	19	6	12,049	—	30,182
Lease obligations	369	291	222	174	138	711
Total	¥517	¥311	¥228	¥12,223	¥138	¥40,894

14 Securities

1. Available-for-sale securities with market value

Fiscal 2016

	Millions of yen			Thousands of U.S. dollars		
	Book value (estimated fair value)	Cost	Net	Book value (estimated fair value)	Cost	Net
Securities with book value exceeding their acquisition cost						
Equity securities	¥25,234	¥ 10,370	¥14,863	\$217,534	\$89,396	\$128,129
Bonds						
Government and municipal	—	—	—	—	—	—
Corporate	6,064	6,000	64	52,275	51,724	551
Others	—	—	—	—	—	—
Others	—	—	—	—	—	—
Subtotal	31,298	16,370	14,928	269,810	141,120	128,689
Securities with book value not exceeding their acquisition cost						
Equity securities	226	241	(15)	1,948	2,077	(129)
Bonds						
Government and municipal	—	—	—	—	—	—
Corporate	2,999	2,999	—	25,853	25,853	—
Others	—	—	—	—	—	—
Others	30,000	30,000	—	258,620	258,620	—
Subtotal	33,226	33,241	(15)	286,431	286,560	(129)
Total	¥64,525	¥49,612	¥14,913	\$556,250	\$427,689	\$128,560

Note: Unlisted equity securities amounting to ¥2,930 million (US\$25,258 thousand) are excluded from the above table, because there is no market price and it is very difficult to identify fair values.

Fiscal 2015

	Millions of yen		
	Book value (estimated fair value)	Cost	Net
Securities with book value exceeding their acquisition cost			
Equity securities	¥24,768	¥ 9,637	¥15,131
Bonds			
Government and municipal	—	—	—
Corporate	6,069	6,000	69
Others	—	—	—
Others	3,047	3,019	27
Subtotal	33,885	18,656	15,228
Securities with book value not exceeding their acquisition cost			
Equity securities	595	694	(99)
Bonds			
Government and municipal	—	—	—
Corporate	—	—	—
Others	—	—	—
Others	18,805	18,805	—
Subtotal	19,400	19,500	(99)
Total	¥53,285	¥38,156	¥15,129

Note: Unlisted equity securities amounting to ¥3,217 million are excluded from the above table, because there is no market price and it is very difficult to identify fair values.

2. Available-for-sale securities sold during the fiscal year**Fiscal 2016**

Category	Millions of yen			Thousand of U.S. dollars		
	Proceeds from sales	Total gain	Total loss	Proceeds from sales	Total gain	Total loss
Others.....	¥3,498	¥384	¥—	\$30,155	\$3,310	\$—
Total	¥3,498	¥384	¥—	\$30,155	\$3,310	\$—

Notes: 1. Attributable to cancellation of an investment trust and sale of stock.
2. Securities for which it is difficult to identify fair value are excluded from the above table.

Fiscal 2015

Category	Millions of yen		
	Proceeds from sales	Total gain	Total loss
Others.....	¥4,241	¥172	¥—
Total	¥4,241	¥172	¥—

Notes: 1. Mainly attributable to the sale of stock.
2. Securities for which it is difficult to identify fair value are excluded from the above table.

3. Impairment loss on securities

The Company recognized impairment loss on securities of ¥154 million (US\$1,327 thousand) in fiscal 2016. The Company recognized impairment loss on securities of ¥866 million in fiscal 2015.

As for the available-for-sale securities for which market prices are available, the Company recognizes impairment loss when the fair value of such securities as of the fiscal year end declines to less than 50% of acquisition cost. When the fair value declines to between 30% and 50% of the acquisition cost, the Company considers the recoverability of each security and recognizes impairment for the amount deemed necessary. As for the available-for-sale securities for which market prices are not available, the Company recognizes impairment loss in the amount deemed necessary when the fair value of such securities declines significantly.

15 Derivative Financial Instruments**1. Derivative transactions to which hedge accounting is not applied**

(1) Currencies

Fiscal 2016

Category	Classification	Millions of yen			
		Nominal amount	Nominal amount due after one year	Market value	Unrealized gain (loss)
Transactions other than market transactions	Forward foreign exchange contracts:				
	Yen into U.S. dollar obligation	¥34,445	¥ —	¥(4,216)	¥(4,216)
	Yen into Euro obligation	20,305	1,404	(1,067)	(1,067)
	Yen into Yuan obligation	536	—	(37)	(37)
	Yen into Australian dollar obligation	2,741	253	(192)	(192)
	U.S. dollar into Yen obligation.....	356	—	10	10
	Euro into Yen obligation.....	336	—	22	22
	Non-deliverable forward foreign exchange transaction:				
	Yen into Won obligation	3,079	—	(179)	(179)
Total	¥61,800	¥1,657	¥(5,659)	¥(5,659)	

Category	Classification	Thousands of U.S. dollars			
		Nominal amount	Nominal amount due after one year	Market value	Unrealized gain (loss)
Transactions other than market transactions	Forward foreign exchange contracts:				
	Yen into U.S. dollar obligation	\$296,939	\$ —	\$ (36,344)	\$ (36,344)
	Yen into Euro obligation	175,043	12,103	(9,198)	(9,198)
	Yen into Yuan obligation	4,620	—	(318)	(318)
	Yen into Australian dollar obligation	23,629	2,181	(1,655)	(1,655)
	U.S. dollar into Yen obligation.....	3,068	—	86	86
	Euro into Yen obligation.....	2,896	—	189	189
	Non-deliverable forward foreign exchange transaction:				
	Yen into Won obligation	26,543	—	1,543	1,543
	Total	\$532,758	\$14,284	\$ (48,784)	\$ (48,784)

Note: 1. Market values of forward foreign exchange contracts and non-deliverable forward foreign exchange transaction at the end of the fiscal year are calculated using forward exchange rates.

2. The forward foreign exchange contracts and non-deliverable forward foreign exchange transaction above are mainly those set with claims and liabilities to consolidated subsidiaries as the hedged items.

Fiscal 2015

Category	Classification	Millions of yen			
		Nominal amount	Nominal amount due after one year	Market value	Unrealized gain (loss)
Transactions other than market transactions	Forward foreign exchange contracts:				
	Yen into U.S. dollar obligation	¥55,210	¥ —	¥797	¥797
	Yen into Euro obligation	11,357	—	45	45
	Yen into Yuan obligation	550	—	11	11
	Yen into Australian dollar obligation	1,222	342	4	4
	U.S. dollar into Yen obligation.....	898	—	(21)	(21)
	Euro into Yen obligation.....	194	—	(0)	(0)
	Australian dollar into U.S. dollar obligation	199	—	(5)	(5)
	Australian dollar into Euro obligation.....	58	—	(0)	(0)
	U.S. dollar into Won obligation.....	3,256	—	(9)	(9)
Non-deliverable forward foreign exchange transaction:					
Yen into Chilean peso obligation.....	92	—	1	1	
Total	¥73,041	¥342	¥822	¥822	

Note: 1. Market values of forward foreign exchange contracts and non-deliverable forward foreign exchange transaction at the end of the fiscal year are calculated using forward exchange rates.

2. The forward foreign exchange contracts and non-deliverable forward foreign exchange transaction above are mainly those set with claims and liabilities to consolidated subsidiaries as the hedged items.

2. Derivative transactions to which hedge accounting is applied

(1) Currencies

Fiscal 2016

Hedge accounting method	Classification	Major hedged items	Fiscal 2016 (As of December 31, 2016)					
			Millions of yen			Thousands of U.S. dollars		
			Nominal amount	Nominal amount over one year	Market value	Nominal amount	Nominal amount over one year	Market value
Allocation method	Forward foreign exchange contracts:							
	Yen into U.S. dollar obligation	Accounts receivable-trade	¥ 728	¥—	Note	\$6,275	\$—	Note
	Yen into Euro obligation	Accounts receivable-trade	7	—	Note	60	—	Note
	Yen into Baht obligation	Loans receivable	226	—	Note	1,948	—	Note
	U.S. dollar into Yen obligation	Accounts payable-trade	109	—	Note	939	—	Note
Total			¥1,072	¥—	Note	\$9,241	\$—	Note

Note: With respect to forward foreign exchange contracts whose exchange rates are used for translating accounts receivable-trade, loans receivable or accounts payable-trade, market values of forward foreign exchange contracts are included in the market values of the relevant accounts receivable-trade, loans receivable or accounts payable-trade, since they are used for recording accounts receivable-trade, loans receivable or accounts payable-trade as hedged items

Hedge accounting method	Classification	Major hedged items	Fiscal 2016 (As of December 31, 2016)					
			Millions of yen			Thousands of U.S. dollars		
			Nominal amount	Nominal amount over one year	Market value	Nominal amount	Nominal amount over one year	Market value
Deferred hedge method	Forward foreign exchange contracts:							
	Yen into U.S. dollar obligation	Forecasted transactions in foreign currencies	¥4,845	¥—	¥(238)	\$41,767	\$—	\$(2,051)
	Yen into Euro obligation	Forecasted transactions in foreign currencies	1,414	—	(18)	12,189	—	(155)
	Yen into Yuan obligation	Forecasted transactions in foreign currencies	70	—	0	603	—	0
	U.S. dollar into Yen obligation	Forecasted transactions in foreign currencies	1,026	—	79	8,844	—	681
	Euro into Yen obligation	Forecasted transactions in foreign currencies	4	—	(0)	34	—	(0)
Total			¥7,361	¥—	¥(176)	\$63,456	\$—	\$(1,517)

Note: Market values of forward foreign exchange contracts at the end of the fiscal year are calculated using forward exchange rates.

Fiscal 2015

Hedge accounting method	Classification	Major hedged items	Fiscal 2015 (As of December 31, 2015)		
			Millions of yen		
			Nominal amount	Nominal amount over one year	Market value
Allocation method	Forward foreign exchange contracts:				
	Yen into U.S. dollar obligation	Accounts receivable-trade and loans receivable	¥ 800	¥—	Note
	Yen into Euro obligation	Accounts receivable-trade	6	—	Note
	Yen into Baht obligation	Loans receivable	233	—	Note
	U.S. dollar into Yen obligation	Accounts payable-trade	382	—	Note
Total			¥1,424	¥—	Note

Note: With respect to forward foreign exchange contracts whose exchange rates are used for translating accounts receivable-trade, loans receivable or accounts payable-trade, market values of forward foreign exchange contracts are included in the market values of the relevant accounts receivable-trade, loans receivable or accounts payable-trade, since they are used for recording accounts receivable-trade, loans receivable or accounts payable-trade as hedged items.

			Fiscal 2015 (As of December 31, 2015)		
			Millions of yen		
Hedge accounting method	Classification	Major hedged items	Nominal amount	Nominal amount over one year	Market value
Deferred hedge method	Forward foreign exchange contracts:				
	Yen into U.S. dollar obligation	Forecasted transactions in foreign currencies	¥2,971	¥—	¥ (2)
	Yen into Euro obligation	Forecasted transactions in foreign currencies	1,393	—	5
	U.S. dollar into Yen obligation	Forecasted transactions in foreign currencies	708	—	(8)
	Euro into Yen obligation	Forecasted transactions in foreign currencies	2	—	—
Total			¥5,076	¥—	¥ (6)

Note: Market values of forward foreign exchange contracts at the end of the fiscal year are calculated using forward exchange rates.

(2) Interest rate

Fiscal 2016

			Millions of yen		
Hedge accounting method	Classification	Major hedged items	Nominal amount	Nominal amount over one year	Market value
Special treatment for interest rate swaps	Interest rate swaps:				
	Floating rate into fixed rate	Long-term loans payable	¥26,000	¥26,000	Note

			Thousands of U.S. dollars		
Hedge accounting method	Classification	Major hedged items	Nominal amount	Nominal amount over one year	Market value
Special treatment for interest rate swaps	Interest rate swaps:				
	Floating rate into fixed rate	Long-term loans payable	\$224,137	\$224,137	Note

Note: With respect to interest rate swap contracts which meet certain conditions, market values of the interest rate swap contracts are included in the market values of the relevant long-term loans payable, since they are used for recording long-term loans payable as hedged items.

Fiscal 2015

			Millions of yen		
Hedge accounting method	Classification	Major hedged items	Nominal amount	Nominal amount over one year	Market value
Special treatment for interest rate swaps	Interest rate swaps:				
	Floating rate into fixed rate	Long-term loans payable	¥26,000	¥26,000	Note

Note: With respect to interest rate swap contracts which meet certain conditions, market values of the interest rate swap contracts are included in the market values of the relevant long-term loans payable, since they are used for recording long-term loans payable as hedged items.

16 Retirement Benefits

Fiscal 2016 (January 1, 2016 to December 31, 2016)**1. Summary of retirement benefit plan**

The Company and certain consolidated subsidiaries provide retirement benefits to employees with funded and unfunded defined benefits plans and a defined contribution plan. Certain consolidated subsidiaries participate in a multi-employer plan and account for their contributions to this fund as a retirement benefit expense because the plan assets that correspond to the contribution of each participant cannot be reasonably calculated.

The funded defined benefits plan provides a lump sum payment or a pension primarily based on qualifications and length of service. The Company and certain consolidated subsidiaries are introducing a cash-balance plan to the defined benefits plan. The cash-balance plan establishes hypothetical individual employee accounts representing each employee's share of plan funding and assets. Interest credits based on money market rate movements and credits primarily based on qualifications and length of service accumulate in the hypothetical individual employee accounts.

The unfunded retirement benefit plan is a lump sum retirement plan. It functions as a retirement savings plan because the Company has established a retirement benefits trust for it. This plan provides lump sum retirement benefits primarily based on qualifications and length of service.

Certain consolidated subsidiaries use a simplified method to calculate liabilities and expenses associated with their defined benefit and lump sum plans.

2. Defined benefit plan

(1) Reconciliations of beginning and ending balance of retirement benefit plan (excluding simplified method)

	Millions of yen	Thousands of U.S. dollars
Retirement benefit obligations at beginning of year	¥44,283	\$381,750
Service costs	2,093	18,043
Interest costs	518	4,465
Actuarial gain or loss	819	7,060
Benefits paid	(2,906)	(25,051)
Other	(186)	(1,603)
Retirement benefit obligations at end of year	¥44,621	\$384,663

(2) Reconciliations of beginning and ending balance of plan assets (excluding simplified method)

	Millions of yen	Thousands of U.S. dollars
Plan assets at beginning of year	¥35,343	\$304,681
Expected return on plan assets	766	6,603
Actuarial gain or loss	329	2,836
Contribution from entrepreneur	951	8,198
Benefits paid	(1,921)	(16,560)
Other	14	120
Plan assets at end of year	¥35,483	\$305,887

(3) Reconciliations of beginning and ending net defined benefit liabilities using the simplified method

	Millions of yen	Thousands of U.S. dollars
Net defined benefit liabilities at beginning of year.....	¥1,517	\$13,077
Retirement benefit expenses	295	2,543
Benefits paid.....	(136)	(1,172)
Contribution to plan assets.....	(92)	(793)
Other	(6)	(51)
Net defined benefit liabilities at end of year	¥1,576	\$13,586

(4) Reconciliations of net amount of retirement benefit liabilities and plan assets and net amount of net defined benefit obligation and net defined benefit asset recognized on the consolidated balance sheet

	Millions of yen	Thousands of U.S. dollars
Installment type retirement benefit obligation	¥ 38,207	\$ 329,370
Plan assets	(36,004)	(310,379)
	2,202	18,982
Non installment type retirement benefit obligation.....	8,512	73,379
Net amount of net defined benefit obligation and net defined benefit asset recognized on the consolidated balance sheet	10,715	92,370
Net defined benefit obligation	11,542	99,500
Net defined benefit asset	(827)	(7,129)
Net amount of net defined benefit obligation and net defined benefit asset recognized on the consolidated balance sheet	¥ 10,715	\$ 92,370

Note: Includes plan that uses the simplified method.

(5) The components of retirement benefit expenses

	Millions of yen	Thousands of U.S. dollars
Service costs	¥2,093	\$18,043
Interest costs.....	518	4,465
Expected return on plan assets	(766)	(6,603)
Amortization of actuarial gains or losses	1,333	11,491
Amortization of prior service costs.....	(103)	(887)
Retirement benefit expenses calculated by simplified method.....	295	2,543
Other	(22)	(189)
Retirement benefit expense pertaining to defined benefit plan	¥3,348	\$28,862

(6) Remeasurements of defined benefit plans (Consolidated comprehensive income)

The following is a breakdown of remeasurements of defined benefit plans (before deductions for the effect of income taxes).

	Millions of yen	Thousands of U.S. dollars
Prior service costs	¥(103)	\$ (887)
Actuarial gain or loss.....	842	7,258
Total	¥ 739	\$6,370

(7) Remeasurements of defined benefit plans (Consolidated balance sheet)

The following is a breakdown of items recorded in cumulative remeasurements of defined benefit plans (before deductions for the effect of income taxes).

	Millions of yen	Thousands of U.S. dollars
Unrecognized prior service costs	¥ (352)	\$ (3,034)
Unrecognized actuarial gain or loss	(6,139)	(52,922)
Total	¥(6,492)	\$(55,965)

(8) Plan assets

a. The components of plan assets

Debt securities	44%
Equity securities	13%
Life insurance company general accounts ^(Note 1)	21%
Cash and deposits	1%
Other assets	22%
Total ^(Note 2)	100%

Notes: 1. Life insurance companies manage the assets in, assume the asset management risk for, and guarantee a fixed return to policyholders for life insurance general accounts.

2. Total retirement plan assets include 53% of the retirement benefits trust established for the lump sum retirement plan.

b. Determination of long-term expected rate of return on plan assets

The long-term expected rate of return on plan assets is determined with due consideration of current and future distribution of plan assets and current and expected returns on the various types of plan assets.

(9) Actuarial assumptions

Discount rate	Mainly 0.7% or 0.8%
Long-term expected rate of return	Mainly 1.0% or 3.3%

3. Defined contribution plan

The contribution to the defined contribution plan of the Company and its consolidated subsidiaries is ¥821 million (US\$7,077 thousand).

4. Multi-employer plan

The contribution to the multi-employer plan is ¥135 million (US\$1,163 thousand), and is accounted for in the same manner as the contribution to the defined contribution plan of the Company and its consolidated subsidiaries.

Multi-employer plan in which domestic consolidated subsidiaries participate

(1) Accumulated funds for the plan (As of March 31, 2016)

	Millions of yen	Thousands of U.S. dollars
Plan assets	¥ 63,647	\$548,681
Total of actuarial pension liabilities and plan's minimum reserve	75,201	648,284
Difference	¥(11,553)	\$ (99,594)

Note: Item presented as "Projected benefit obligation" in previous fiscal year.

(2) Ratio of total salaries of the consolidated subsidiary to total funds of the plan (As of March 31, 2016)

2.6%

(3) Supplementary explanation (As of March 31, 2016)

The main reasons behind the difference in amounts described above in (1) are as follows. The method of depreciation of prior

service cost in the current fiscal year is to evenly split principals thereof over a period of 9 years and 10 months, and is scheduled to be terminated in January 2026.

	Millions of yen	Thousands of U.S. dollars
Balance of prior service cost	¥16,383	\$141,232
Deficient amount carried forward.....	4,829	41,629

The ratio in the above (2) does not match with the ratio of the actual burden of the consolidated subsidiary.

Multi-employer plan in which overseas consolidated subsidiaries participate

(1) Accumulated funds for the plan (As of June 30, 2016)

	Millions of yen	Thousands of U.S. dollars
Plan assets	¥ 47,179	\$406,715
Total of actuarial pension liabilities and plan's minimum reserve.....	51,343	442,612
Difference	¥ (4,163)	\$ (35,887)

(2) Ratio of total salaries of the consolidated subsidiary to total funds of the plan (As of June 30, 2016)

3.1%

The ratio in the above (2) does not match with the ratio of the actual burden of the consolidated subsidiary.

Fiscal 2015 (January 1, 2015 to December 31, 2015)

1. Summary of retirement benefit plan

The Company and certain consolidated subsidiaries provide retirement benefits to employees with funded and unfunded defined benefits plans and a defined contribution plan. Certain consolidated subsidiaries participate in a multi-employer plan and account for their contributions to this fund as a retirement benefit expense because the plan assets that correspond to the contribution of each participant cannot be reasonably calculated.

The funded defined benefits plan provides a lump sum payment or a pension primarily based on qualifications and length of service. The Company and certain consolidated subsidiaries are introducing a cash-balance plan to the defined benefits plan. The cash-balance plan establishes hypothetical individual employee accounts representing each employee's share of plan funding and assets. Interest credits based on money market rate movements and credits primarily based on qualifications and length of service accumulate in the hypothetical individual employee accounts.

The unfunded retirement benefit plan is a lump sum retirement plan. It functions as a retirement savings plan because the Company has established a retirement benefits trust for it. This plan provides lump sum retirement benefits primarily based on qualifications and length of service.

Certain consolidated subsidiaries use a simplified method to calculate liabilities and expenses associated with their defined benefit and lump sum plans.

2. Defined benefit plan

(1) Reconciliations of beginning and ending balance of retirement benefit plan (excluding simplified method)

	Millions of yen
Retirement benefit obligations at beginning of year.....	¥43,851
Service costs	2,270
Interest costs.....	513
Actuarial gain or loss.....	(158)
Benefits paid.....	(3,023)
Prior service costs incurred	611
Other	217
Retirement benefit obligations at end of year.....	¥44,283

(2) Reconciliations of beginning and ending balance of plan assets (excluding simplified method)

	Millions of yen
Plan assets at beginning of year	¥35,987
Expected return on plan assets	788
Actuarial gain or loss	(377)
Contribution from entrepreneur	412
Benefits paid	(1,491)
Other	24
Plan assets at end of year	¥35,343

(3) Reconciliations of beginning and ending net defined benefit liabilities using the simplified method

	Millions of yen
Net defined benefit liabilities at beginning of year	¥1,372
Retirement benefit expenses	255
Benefits paid	(84)
Contribution to plan assets	(36)
Other	9
Net defined benefit liabilities at end of year	¥1,517

(4) Reconciliations of net amount of retirement benefit liabilities and plan assets and net amount of net defined benefit obligation and net defined benefit asset recognized on the consolidated balance sheet

	Millions of yen
Installment type retirement benefit obligation	¥38,402
Plan assets	(35,785)
	2,617
Non installment type retirement benefit obligation	7,839
Net amount of net defined benefit obligation and net defined benefit asset recognized on the consolidated balance sheet	10,456
Net defined benefit obligation	11,247
Net defined benefit asset	(791)
Net amount of net defined benefit obligation and net defined benefit asset recognized on the consolidated balance sheet	¥10,456

Note: Includes plan that uses the simplified method.

(5) The components of retirement benefit expenses

	Millions of yen
Service costs	¥2,270
Interest costs	513
Expected return on plan assets	(788)
Amortization of actuarial gains or losses	1,366
Amortization of prior service costs	64
Retirement benefit expenses calculated by simplified method	255
Other	(22)
Retirement benefit expense pertaining to defined benefit plan	¥3,659

(6) Remeasurements of defined benefit plans (Consolidated comprehensive income)

The following is a breakdown of remeasurements of defined benefit plans (before deductions for the effect of income taxes).

	Millions of yen
Prior service costs	¥ (547)
Actuarial gain or loss.....	1,147
Total	¥ 600

(7) Remeasurements of defined benefit plans (Consolidated balance sheet)

The following is a breakdown of items recorded in cumulative remeasurements of defined benefit plans (before deductions for the effect of income taxes).

	Millions of yen
Unrecognized prior service costs	¥ (346)
Unrecognized actuarial gain or loss	(6,885)
Total	¥(7,231)

(8) Plan assets

a. The components of plan assets

Debt securities	59%
Equity securities	13%
Life insurance company general accounts ^(Note 1)	22%
Cash and deposits	1%
Other assets	5%
Total ^(Note 2)	100%

Notes: 1. Life insurance companies manage the assets in, assume the asset management risk for, and guarantee a fixed return to policyholders for life insurance general accounts.

2. Total retirement plan assets include 52% of the retirement benefits trust established for the lump sum retirement plan.

b. Determination of long-term expected rate of return on plan assets

The long-term expected rate of return on plan assets is determined with due consideration of current and future distribution of plan assets and current and expected returns on the various types of plan assets.

(9) Actuarial assumptions

Discount rate..... Mainly 0.7% or 0.8%

Long-term expected rate of return..... Mainly 1.0% or 3.3%

3. Defined contribution plan

The contribution to the defined contribution plan of the Company and its consolidated subsidiaries is ¥851 million.

4. Multi-employer plan

The contribution to the multi-employer plan is ¥94 million, and is accounted for in the same manner as the contribution to the defined contribution plan of the Company and its consolidated subsidiaries.

Multi-employer plan in which domestic consolidated subsidiaries participate

(1) Accumulated funds for the plan (As of March 31, 2015)

	Millions of yen
Plan assets	¥ 67,088
Total of actuarial pension liabilities and plan's minimum reserve.....	82,865
Difference	¥(15,776)

(2) Ratio of total salaries of the consolidated subsidiary to total funds of the plan (As of March 31, 2015)

2.5%

The ratio in the above (2) does not match with the ratio of the actual burden of the consolidated subsidiary.

Multi-employer plan in which overseas consolidated subsidiaries participate

(1) Accumulated funds for the plan (As of June 30, 2015)

	Millions of yen
Plan assets	¥55,262
Total of actuarial pension liabilities and plan's minimum reserve.....	58,076
Difference	¥ (2,813)

(2) Ratio of total salaries of the consolidated subsidiary to total funds of the plan (As of June 30, 2015)

2.9%

The ratio in the above (2) does not match with the ratio of the actual burden of the consolidated subsidiary.

17 Stock-Based Compensation Plans

1. Item and amount of expenses for stock options

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Selling, general and administrative expenses.....	¥82	¥80	\$706

2. Details including size and changes of stock options

(1) Stock options plans

	Stock options June 2007	Stock options June 2008	Stock options June 2009
Number of eligible persons by position	Directors of the Company: 10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 11	Directors of the Company: 10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 16	Directors of the Company: 9 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 15
Total number and type of stocks granted	56,500 shares of common stock	78,500 shares of common stock	86,500 shares of common stock
Grant date	June 5, 2007	June 10, 2008	June 9, 2009
Prerequisite to be vested	No vesting conditions are set.	No vesting conditions are set.	No vesting conditions are set.
Required service period	There is no provision for a required service period.	There is no provision for a required service period.	There is no provision for a required service period.
Exercise period	From June 6, 2007 to June 5, 2022; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.	From June 11, 2008 to June 10, 2023; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.	From June 10, 2009 to June 9, 2024; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.

	Stock options June 2010	Stock options October 2010	Stock options May 2011
Number of eligible persons by position	Directors of the Company: 9 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 16	Directors: 25 Employees: 3,924 Directors or employees of the Company's subsidiaries: 2,010	Directors of the Company: 10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 14
Total number and type of stocks granted	83,500 shares of common stock	4,074,500 shares of common stock	89,500 shares of common stock
Grant date	June 9, 2010	October 1, 2010	May 19, 2011
Prerequisite to be vested	No vesting conditions are set.	Note	No vesting conditions are set.
Required service period	There is no provision for a required service period.	From October 1, 2010 to June 24, 2012	There is no provision for a required service period.
Exercise period	From June 10, 2010 to June 9, 2025; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.	From June 25, 2012 to June 24, 2020	From May 19, 2011 to May 18, 2026; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.

	Stock options May 2012	Stock options May 2013	Stock options May 2014
Number of eligible persons by position	Directors of the Company:10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas):13	Directors of the Company:10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas):17	Directors of the Company:10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas):17
Total number and type of stocks granted	86,500 shares of common stock	88,000 shares of common stock	78,500 shares of common stock
Grant date	May 17, 2012	May 15, 2013	May 15, 2014
Prerequisite to be vested	No vesting conditions are set.	No vesting conditions are set.	No vesting conditions are set.
Required service period	There is no provision for a required service period.	There is no provision for a required service period.	There is no provision for a required service period.
Exercise period	From May 17, 2012 to May 16, 2027; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.	From May 15, 2013 to May 14, 2028; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.	From May 15, 2014 to May 14, 2029; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.

	Stock options February 2015	Stock options February 2016
Number of eligible persons by position	Directors of the Company:12 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 11	Directors of the Company: 12 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 10
Total number and type of stocks granted	59,500 shares of common stock	69,000 shares of common stock
Grant date	February 17, 2015	February 10, 2016
Prerequisite to be vested	No vesting conditions are set.	No vesting conditions are set.
Required service period	There is no provision for a required service period.	There is no provision for a required service period.
Exercise period	From February 17, 2015 to February 16, 2030; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.	From February 10, 2016 to February 9, 2031; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.

Note: Eligible persons shall be directors, executive officers, counselors, full-time consultants or employees of the Company or the Companies' subsidiaries at the time of exercise. However, those who were directors, executive officers or associate executive officers of the Company or presidents of the significant subsidiaries of the Company (Kuraray Engineering Co., Ltd., Kuraray Chemical Co., Ltd., Kuraray Trading Co., Ltd., Kuraray Plastics Co., Ltd., Kuraray Techno Co., Ltd., Kuraray America, Inc., Kuraray Europe GmbH and EVAL Europe N.V.) can exercise even after retirement.

Other conditions are prescribed in the "Contracts on Subscription Rights to Shares" to be entered into between the Company and eligible persons who were granted subscription rights to shares.

(2) Size and changes of stock options

Stock options that existed in current fiscal years were converted into shares.

1) Number of stock options

	Stock options June 2007	Stock options June 2008	Stock options June 2009	Stock options June 2010	Stock options October 2010
Unvested stock options (shares)					
At the beginning of the fiscal year	—	—	—	—	—
Granted	—	—	—	—	—
Forfeited	—	—	—	—	—
Vested	—	—	—	—	—
At the end of the fiscal year	—	—	—	—	—
Vested stock options (shares)					
At the beginning of the fiscal year	4,000	7,500	17,500	17,000	2,119,000
Vested	—	—	—	—	—
Exercised	—	1,000	3,000	4,000	181,500
Forfeited	—	—	—	—	30,500
At the end of the fiscal year	4,000	6,500	14,500	13,000	1,907,000
	Stock options May 2011	Stock options May 2012	Stock options May 2013	Stock options May 2014	Stock options February 2015
Unvested stock options (shares)					
At the beginning of the fiscal year	—	—	—	—	—
Granted	—	—	—	—	—
Forfeited	—	—	—	—	—
Vested	—	—	—	—	—
At the end of the fiscal year	—	—	—	—	—
Vested stock options (shares)					
At the beginning of the fiscal year	29,000	31,500	45,500	53,000	48,500
Vested	—	—	—	—	—
Exercised	13,500	16,000	19,500	22,000	16,500
Forfeited	—	—	—	—	—
At the end of the fiscal year	15,500	15,500	26,000	31,000	32,000
	Stock options February 2016				
Unvested stock options (shares)					
At the beginning of the fiscal year	—				
Granted	69,000				
Forfeited	—				
Vested	69,000				
At the end of the fiscal year	—				
Vested stock options (shares)					
At the beginning of the fiscal year	—				
Vested	69,000				
Exercised	22,000				
Forfeited	—				
At the end of the fiscal year	47,000				

2) Price information

	Yen				
	Stock options June 2007	Stock options June 2008	Stock options June 2009	Stock options June 2010	Stock options October 2010
Exercise prices	¥ 1	¥ 1	¥ 1	¥ 1	¥1,078
Weighted-average exercise date stock price	—	1,332	1,332	1,332	1,591
Fair value at the grant date	1,318	1,264	947	1,054	247

	Yen				
	Stock options May 2011	Stock options May 2012	Stock options May 2013	Stock options May 2014	Stock options February 2015
Exercise prices	¥ 1	¥ 1	¥ 1	¥ 1	¥ 1
Weighted-average exercise date stock price	1,332	1,332	1,332	1,332	1,332
Fair value at the grant date	1,174	1,046	1,482	1,119	1,352

	Yen Stock options February 2016
Exercise prices	¥ 1
Weighted-average exercise date stock price	1,332
Fair value at the grant date	1,200

	U.S. dollars				
	Stock options June 2007	Stock options June 2008	Stock options June 2009	Stock options June 2010	Stock options October 2010
Exercise prices	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 9.29
Weighted-average exercise date stock price	—	11.48	11.48	11.48	13.71
Fair value at the grant date	11.36	10.89	8.16	9.08	2.12

	U.S. dollars				
	Stock options May 2011	Stock options May 2012	Stock options May 2013	Stock options May 2014	Stock options February 2015
Exercise prices	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Weighted-average exercise date stock price	11.48	11.48	11.48	11.48	11.48
Fair value at the grant date	10.12	9.01	12.77	9.64	11.65

	U.S. dollars Stock options February 2016
Exercise prices	\$ 0.00
Weighted-average exercise date stock price	11.48
Fair value at the grant date	10.34

3. Method to estimate fair value of stock options

The fair value of the February 2016 stock options, which were granted in fiscal 2016, are estimated as follows.

1) Valuing method: Black-Scholes model

2) Major basic figures and estimating method

	February 2016 stock options
Stock price volatility ^(Note 1)	25.1 %
Expected remaining life ^(Note 2)	1.50 year
Expected dividend ^(Note 3)	¥40/share (US\$0.344)
Risk-free interest rate ^(Note 4)	-0.22 %

Notes: 1. Calculated weekly based on the weekly stock price information over a period from the week that contains August 4, 2014 to the week that contains February 1, 2016.

2. Calculated by subtracting the average period of service of directors and executive officers who are currently in office as of the day of grant from the past average period of service of directors and executive officers.

3. Based on the dividend paid for the fiscal year ended December 2015.

4. Government bond yield over a period corresponding to the expected remaining life.

4. Method to estimate number of vested stock options

Stock options February 2016

The number of vested stock options is the same as the number of stock options granted, since the stock options were vested on the day following the day of the grant.

18 Income Taxes

1. Significant components of deferred tax assets and liabilities at December 31, 2016 and December 31, 2015

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Deferred tax assets:			
Net defined benefit liabilities	¥ 8,299	¥ 8,389	\$ 71,543
Impairment loss	2,504	2,355	21,586
Provision for bonuses	1,082	1,140	9,327
Write-down of investment securities	1,070	1,077	9,224
Write-down of inventories	514	319	4,431
Other	18,042	20,287	155,534
Subtotal deferred tax assets	31,513	33,571	271,663
Valuation allowance	(9,090)	(9,179)	(78,362)
Total deferred tax assets	22,422	24,391	193,293
Deferred tax liabilities:			
Net defined benefit assets	(251)	(214)	(2,163)
Reserve for reduction entry	(1,267)	(1,410)	(10,922)
Unrealized gain on revaluation of securities	(4,043)	(4,402)	(34,853)
Adjustment to book value of assets stated at fair value	(10,890)	(12,054)	(93,879)
Other	(18,341)	(16,452)	(158,112)
Total deferred tax liabilities	(34,793)	(34,532)	(299,939)
Net deferred tax assets (liabilities)	¥(12,370)	¥(10,141)	\$(106,637)

Net deferred tax assets are included in the following items in the consolidated balance sheet:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Current assets:			
Deferred tax assets	¥ 5,974	¥ 7,598	\$ 51,500
Noncurrent assets:			
Deferred tax assets	7,097	6,361	61,181
Noncurrent liabilities:			
Deferred tax liabilities	(25,442)	(24,102)	(219,327)

2. Reconciliation of the differences between the normal effective tax rate and the income tax rate in the accompanying consolidated statement of income at December 31, 2016 and December 31, 2015

	Fiscal 2016	Fiscal 2015
Normal effective tax rate	32.8%	35.4%
Non-taxable income.....	(0.6)	(0.8)
Tax credit primarily for research and development expenses.....	(3.5)	(3.1)
Decrease in deferred tax assets at fiscal year-end due to change in tax rate.....	0.8	1.4
Income taxes for prior periods.....	—	2.6
Other	2.4	2.1
Income tax rate per the consolidated statement of income	31.9%	37.7%

3. Revision of deferred tax assets and liabilities due to a change in the income tax rate

The “Act for Partial Revision of the Income Tax Act, etc.” and the “Act for Partial Revision of the Local Tax Act, etc.” were promulgated on March 29, 2016, and the “Act for Partial Revision of the Act for Partial Revision of the Consumption Tax Act to Make Sweeping Reforms to the Tax System to Secure Revenue to Fund the Increased Cost of Social Security” and the “Act for Partial Revision of the Act for Partial Revision of the Local Tax Act and the Local Allocation Tax Act to Make Sweeping Reforms to the Tax System for Securing Revenue to Fund the Increased Cost of Social Security” were promulgated on November 18, 2016. Accordingly, the effective statutory tax rate used to measure deferred tax assets and liabilities (limited to those to be eliminated on or after January 1, 2017) changed from 32.0% in the previous fiscal year to 30.7% for those expected to be recovered or paid from January 1, 2017 to December 31, 2018, and 30.4% for those expected to be recovered or paid on or after January 1, 2019.

As a result of these changes, deferred tax assets net of deferred tax liabilities have decreased by ¥307 million (US\$2,646 thousand), income taxes–deferred have increased by ¥476 million (\$4,103 thousand), valuation difference on available-for-sale securities has increased by ¥211 million (\$1,818 thousand), deferred gains or losses on hedges has decreased by ¥2 million (\$17 thousand), and remeasurements of defined benefit plans have decreased by ¥44 million (\$379 thousand).

19 Asset Retirement Obligations

Asset retirement obligations recorded in the consolidated balance sheet are as follows:

Overview of asset retirement obligations

Some tangible fixed assets of the Company include assets containing asbestos, PCB and fluorocarbon which must be treated in the manner stipulated by the laws and ordinances when they are scrapped or removed.

Accordingly, asset retirement obligations are recognized based on the estimated disposal costs, excluding removal costs for aforementioned toxic substances incurred through the repair and maintenance activities in the normal service of the tangible fixed assets. The grounds laws and ordinances are as follows:

Disposal costs for asbestos	The Ordinance on Prevention of Asbestos Hazards
Disposal costs for equipment containing PCB	The Law concerning Special Measures for Promotion of Proper Treatment of PCB Wastes (PCB Special Measures Law)
Disposal costs for equipment containing fluorocarbon	Law concerning the Recovery and Destruction of Fluorocarbons (Fluorocarbons Recovery and Destruction Act)

Certain consolidated subsidiaries including overseas subsidiaries recognize asset retirement obligations for recovery obligations on rental agreements on plant sites and lease contracts.

Calculation method for the amount of asset retirement obligations

The Company

The Company recognizes asset retirement obligations for tangible fixed assets planned to be removed or assets, which have been removed, but not scrapped yet. Tangible fixed assets planned to be removed mainly consist of assets, which are in use for the reason that they are still usable although useful lives have elapsed and assets, which need immaterial time to remove. Since the

payment terms for disposal of these assets are considered to have matured, removal costs, which are reasonably estimated without discounting future cash flows, are recorded as asset retirement obligations.

Consolidated subsidiaries

Consolidated subsidiaries determine the amounts of asset retirement obligations using discount rates ranging from 1.9% to 5.0% for the net cash flows, estimating the period of use to be 22 to 40 years after acquisition.

Increase or decrease of the total amount of asset retirement obligations during the fiscal years ended December 31, 2016 and December 31, 2015:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Beginning balance	¥3,620	¥3,500	\$31,206
Increase due to decisions to remove.....	562	885	4,844
Adjustments due to the elapse of time.....	65	64	560
Decrease due to payment for the obligations.....	(88)	(136)	(758)
Other increase (decrease)	37	(692)	318
Ending balance	¥4,197	¥3,620	\$36,181

20 Segment Information

Segment information

1. Segment overview

The business segments reported by Kuraray are the business units for which the Company is able to obtain respective financial information separately in order for the Board of Directors to conduct periodic investigations to determine distribution of management resources and evaluate their business results.

Kuraray adopts an in-house company system where each in-house company conducts business activities and establishes its own comprehensive strategy, both for Japan and for overseas markets, for the products it handles. In addition, among Kuraray subsidiaries, Kuraray Trading Co., Ltd. independently conducts proprietary planning and sales activities, including the processing and sale of Kuraray Group products as well as other companies' products.

Consequently, Kuraray has created five business segments for reporting - "Vinyl Acetate," "Isoprene," "Functional Materials," "Fibers and Textiles" and "Trading" - categorized by product group based on the respective in-house companies and the Trading segment.

The Vinyl Acetate segment manufactures and markets functional resins and film, including PVA, PVB and EVAL. The Isoprene segment manufactures and markets *SEPTON* thermoplastic elastomers and *KURARITY*, isoprene-related products and *GENESTAR*. The Functional Materials segment manufactures and markets methacrylic resin, *CLARINO* man-made leather and medical products. The Fibers and Textiles segment manufactures and markets synthetic fibers and textiles, non-woven fabrics and others. The Trading segment mainly processes and sells synthetic fibers and man-made leather, and conducts planning and marketing for other products produced by the Kuraray Group and other companies.

2. Methods for calculating reporting segment net sales, income and loss, assets and other items

The accounting method applied to reported business segments is the same as that stated in "Significant Accounting Policies." Profits from reported segments are operating income, and inter-segment sales and transfers are based on the prevailing market prices.

As stated in the Changes in Accounting Policies, the method of depreciation for structures purchased on or after April 1, 2016 changed to the straight-line method from the declining-balance method due to tax reforms. Accordingly, the same change was made to the method of depreciation for reported segments.

The effect of this change on segment income (loss) for the fiscal year ended December 31, 2016 is immaterial.

3. Information on sales, income and loss, assets, and other amounts by reporting segment

Fiscal 2016 (January 1, 2016 to December 31, 2016)

	Millions of yen									
	Reporting Segments						Other Business	Total	Adjustment	Consolidated Financial Statements
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Trading	Total				
Net sales										
(1) Outside customers	¥223,447	¥27,637	¥34,151	¥37,305	¥116,566	¥439,108	¥46,083	¥485,192	¥ —	¥485,192
(2) Inter-segment sales and transfers	29,727	23,445	18,094	11,261	2,931	85,460	17,754	103,214	(103,214)	—
Total	253,175	51,083	52,246	48,566	119,498	524,568	63,838	588,407	(103,214)	485,192
Segment income (loss)	58,517	6,934	4,631	5,958	3,833	79,876	2,017	81,894	(14,067)	67,827
Segment assets.....	400,326	49,778	44,851	49,082	41,464	585,503	53,082	638,585	86,847	725,433
Other items										
Depreciation and amortization (other than goodwill).....	22,815	4,333	3,352	3,446	45	33,993	2,114	36,107	1,767	37,874
Impairment loss.....	489	83	25	—	—	599	1,580	2,179	—	2,179
Amortization of goodwill...	3,543	—	135	—	—	3,678	2	3,680	—	3,680
Balance of goodwill at end of current period.....	25,100	—	1,151	—	—	26,251	4	26,256	—	26,256
Investments in equity method affiliates.....	—	—	—	109	—	109	—	109	—	109
Increase in tangible fixed assets and intangible fixed assets	35,350	2,070	3,726	5,176	114	46,438	2,548	48,986	4,621	53,608

	Thousands of U.S. dollars									
	Reporting Segments						Other Business	Total	Adjustment	Consolidated Financial Statements
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Trading	Total				
Net sales										
(1) Outside customers	\$1,926,267	\$238,250	\$294,405	\$321,594	\$1,004,879	\$3,785,413	\$397,267	\$4,182,689	\$ —	\$4,182,689
(2) Inter-segment sales and transfers	256,267	202,112	155,982	97,077	25,267	736,724	153,051	889,775	(889,775)	—
Total	2,182,543	440,370	450,396	418,672	1,030,155	4,522,137	550,327	5,072,474	(889,775)	4,182,689
Segment income (loss)	504,456	59,775	39,922	51,362	33,043	688,586	17,387	705,982	(121,267)	584,715
Segment assets.....	3,451,086	429,120	386,646	423,120	357,448	5,047,439	457,603	5,505,043	748,681	6,253,732
Other items										
Depreciation and amortization (other than goodwill).....	196,681	37,353	28,896	29,706	387	293,043	18,224	311,267	15,232	326,500
Impairment loss.....	4,215	715	215	—	—	5,163	13,620	18,784	—	18,784
Amortization of goodwill...	30,543	—	1,163	—	—	31,706	17	31,724	—	31,724
Balance of goodwill at end of current period	216,379	—	9,922	—	—	226,301	34	226,344	—	226,344
Investments in equity method affiliates.....	—	—	—	939	—	939	—	939	—	939
Increase in tangible fixed assets and intangible fixed assets	304,741	17,844	32,120	44,620	982	400,327	21,965	422,293	39,836	462,137

- Notes: 1. The "Other Business" category incorporates operations not included in reporting segments, including activated carbon, environmental business and engineering business.
2. Adjustment is as follows: Included within segment income (loss) of ¥14,067 million (US\$121,267 thousand) is the elimination of inter-segment transactions of ¥1,435 million (US\$12,370 thousand) and corporate expenses of ¥15,502 million (US\$133,637 thousand). Corporate expenses mainly comprise headquarters' general and administrative expenses and the Company's basic research expenses.
3. Segment income is adjusted with operating income under the Consolidated Statement of Income.
4. Adjustment is as follows: Included within segment assets of ¥86,847 million (US\$748,681 thousand) is the elimination of inter-segment transactions of ¥35,872 million (US\$309,241 thousand) and corporate assets of ¥122,720 million (US\$1,057,931 thousand). Major corporate assets are surplus funds, long-term investment funds, assets related to basic research and corporate administrative divisions of the Company.

Fiscal 2015 (January 1, 2015 to December 31, 2015)

	Millions of yen									Consolidated Financial Statements	
	Reporting Segments						Other Business	Total	Adjustment		
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Trading	Total					
Net sales											
(1) Outside customers	¥243,154	¥31,447	¥38,923	¥35,398	¥117,384	¥466,309	¥55,412	¥521,721	¥	—	¥521,721
(2) Inter-segment sales and transfers	31,591	23,537	17,955	10,945	2,255	86,286	14,189	100,475	(100,475)		—
Total	274,746	54,985	56,879	46,344	119,640	552,595	69,601	622,197	(100,475)		521,721
Segment income (loss).....	55,740	6,922	5,564	4,108	3,882	76,219	2,773	78,993	(12,915)		66,077
Segment assets.....	398,050	54,076	44,210	46,542	39,470	582,350	53,965	636,316	65,454		701,770
Other items											
Depreciation and amortization (other than goodwill).....	25,004	4,802	3,334	3,485	43	36,670	2,079	38,750	1,489		40,239
Impairment loss.....	544	—	—	—	—	544	4,302	4,847	—		4,847
Amortization of goodwill...	3,761	—	98	—	—	3,859	2	3,862	—		3,862
Balance of goodwill at end of current period.....	27,543	—	1,014	—	—	28,557	7	28,564	—		28,564
Negative goodwill	—	—	—	—	—	—	2	2	—		2
Investments in equity method affiliates.....	—	—	—	108	—	108	—	108	—		108
Increase in tangible fixed assets and intangible fixed assets	30,221	2,398	3,239	4,073	27	39,960	2,083	42,044	2,969		45,014

Notes: 1. The "Other Business" category incorporates operations not included in reporting segments, including activated carbon, environmental business and engineering business.

2. Adjustment is as follows: Included within segment income (loss) of ¥12,915 million is the elimination of inter-segment transactions of ¥1,712 million and corporate expenses of ¥14,628 million. Corporate expenses mainly comprise headquarters' general and administrative expenses and the Company's basic research expenses.

3. Segment income is adjusted with operating income under the Consolidated Statement of Income.

4. Adjustment is as follows: Included within segment assets of ¥65,454 million is the elimination of inter-segment transactions of ¥32,178 million and corporate assets of ¥97,632 million. Major corporate assets are surplus funds, long-term investment funds, assets related to basic research and corporate administrative divisions of the Company.

(Related Information)**Fiscal 2016 (January 1, 2016 to December 31, 2016)**

1. Information about products and services

	Millions of yen					
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Other Business	Total
Net sales to outside customers	¥254,383	¥47,808	¥55,045	¥71,188	¥56,766	¥485,192

	Thousands of U.S. dollars					
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Other Business	Total
Net sales to outside customers	\$2,192,956	\$412,137	\$474,525	\$613,689	\$489,362	\$4,182,689

Note: Principal products of each segment are as follows:

Vinyl Acetate:	PVA resin and film, EVAL resin and others
Isoprene:	SEPTON thermoplastic elastomers and KURARITY, isoprene chemicals, GENESTAR heat-resistant polyamide resin and others
Functional Materials:	Methacrylic resin, CLARINO man-made leather, medical products and others
Fibers and Textiles:	KURALON, KURAFLEX non-woven fabrics, MAGIC TAPE hook and loop fasteners, polyester and others
Others:	Activated carbon, environmental business and engineering business and others

2. Performance by geographical segment

(1) Net sales

Millions of yen						
Japan	United States	China	Europe	Asia	Other Area	Total
¥180,101	¥62,837	¥49,302	¥97,165	¥73,952	¥21,832	¥485,192

Thousands of U.S. dollars						
Japan	United States	China	Europe	Asia	Other Area	Total
\$1,552,594	\$541,698	\$425,017	\$837,629	\$637,517	\$188,206	\$4,182,689

Note: Net sales are classified by country or area based on customer location.

(2) Tangible fixed assets

Millions of yen					Thousands of U.S. dollars				
Japan	United States	Germany	Other Overseas	Total	Japan	United States	Germany	Other Overseas	Total
¥126,819	¥94,340	¥24,989	¥25,678	¥271,827	\$1,093,267	\$813,275	\$215,422	\$221,362	\$2,343,336

3. Major customers

No information is available as there is no single outside customer accounting for 10% or more of the Company's total net sales.

Fiscal 2015 (January 1, 2015 to December 31, 2015)

1. Information about products and services

	Millions of yen					
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Other Business	Total
Net sales to outside customers.....	¥274,164	¥51,544	¥60,313	¥69,908	¥65,791	¥521,721

Note: Principal products of each segment are as follows:

Vinyl Acetate: PVA resin and film, EVAL resin and others
 Isoprene: SEPTON thermoplastic elastomers and KURARITY, isoprene chemicals, GENESTAR heat-resistant polyamide resin and others
 Functional Materials: Methacrylic resin, CLARINO man-made leather, medical products and others
 Fibers and Textiles: KURALON, KURAFLEX non-woven fabrics, MAGIC TAPE hook and loop fasteners, polyester and others
 Others: Activated carbon, environmental business and engineering business and others

2. Performance by geographical segment

(1) Net sales

Millions of yen						
Japan	United States	China	Europe	Asia	Other Area	Total
¥184,324	¥82,266	¥49,409	¥103,030	¥78,833	¥23,856	¥521,721

Note: Net sales are classified by country or area based on customer location.

(2) Tangible fixed assets

Millions of yen				
Japan	United States	Germany	Other Overseas	Total
¥122,921	¥97,865	¥25,633	¥15,599	¥262,019

3. Major customers

No information is available as there is no single outside customer accounting for 10% or more of the Company's total net sales.

Information about impairment loss of fixed assets by reporting segment

Fiscal 2016: This information is omitted since similar information is disclosed in the segment information.

Fiscal 2015: This information is omitted since similar information is disclosed in the segment information.

Information about amortization of goodwill and unamortized balance of goodwill by reporting segment

Fiscal 2016: This information is omitted since similar information is disclosed in the segment information.

Fiscal 2015: This information is omitted since similar information is disclosed in the segment information.

Information about gain on negative goodwill**Fiscal 2016:** Not applicable.

Fiscal 2015: This information is omitted since similar information is disclosed in the segment information.

21 Related Party Disclosures**Fiscal 2016:** Not applicable

Fiscal 2015: Not applicable

22 Per Share Information

	Yen		U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Net assets per share	¥1,459.34	¥1,412.46	\$12.58
Basic net income per share	114.98	101.84	0.99
Diluted net income per share	114.75	101.57	0.98

Note: 1. The basis for computation of basic and diluted net income per share is as follows:

2. As stated in Changes in Accounting Policies, the Accounting Standard for Business Combinations is applied. This change has no effect on the consolidated financial statements and per-share information in the fiscal year ended December 31, 2016.

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2016	Fiscal 2015	Fiscal 2016
Basic net income per share			
Net income attributable to owners of the parent	¥ 40,400	¥ 35,749	\$348,275
Amount unallocated to common stock.....	—	—	—
Net income attributable to owners of the parent allocated to common stock	40,400	35,749	348,275
Average number of common stock outstanding during the fiscal year (thousand shares)	351,351	351,015	351,351
Diluted net income per share			
Adjustment made on net income	—	—	—
Increase of common stocks (thousand shares)	723	948	723
(New subscription rights to shares (thousand shares))	(723)	(948)	(723)
Outline of the residual securities which were not included in the calculation of the diluted net income per share because there was no dilutive effect	—	—	—

23 Supplementary Schedule

Bond schedule

Company name	Issue	Date of issue	Balance at beginning of period	Balance at end of period	Yield	Security	Date of redemption
Kuraray	No. 4 Unsecured bonds	December 9, 2011	¥10,000 (US\$86,206 thousand)	¥10,000 (US\$86,206 thousand)	1.24%	None	December 9, 2021
	Total	—	¥10,000 (US\$86,206 thousand)	¥10,000 (US\$86,206 thousand)	—	—	—

Note: Total amount of corporate bonds to be redeemed each year within five years of the consolidated fiscal year-end:
(Millions of yen)

Due within 1 year	Due in 1-2 years	Due in 2-3 years	Due in 3-4 years	Due in 4-5 years
—	—	—	—	¥10,000 (US\$86,206 thousand)

Supplementary schedule of loans payable

(Millions of yen)

Category	Balance as of January 1, 2016	Balance as of December 31, 2016	Average interest rate (%)	Due date
Short-term loans	¥ 7,040	¥ 7,541 (US\$65,008 thousand)	0.4	
Current portion of long-term loans due within one year	147	¥ 85 (US\$732 thousand)	1.8	
Current portion of long-term lease due within one year ^(Note 2)	369	¥ 363 (US\$3,129 thousand)	—	
Long-term loans (Excluding current portion) ^(Note 3)	42,257	¥42,172 (US\$363,551 thousand)	1.2	From January 2018 to March 2024
Lease liabilities (Excluding current portion) ^(Notes 2, 3)	1,537	¥ 1,524 (US\$13,137 thousand)	—	From January 2018 to September 2046
Other interest-bearing debts (Commercial papers)	—	—	—	
Total	¥51,352	¥51,686 (US\$445,568 thousand)	—	

Notes: 1. The average interest rate is calculated based on the interest rate and the ending balance.

2. The average interest rate on lease liabilities is not reported, since interest payment equivalents included in total lease payments are allocated to each consolidated fiscal year using the straight-line method.

3. Repayments of long-term loans and lease liabilities (excluding those due within one year) within 5 years after the Consolidated Balance Sheet date are as follows:

Category	Due after 1 year but within 2 years	Due after 2 years but within 3 years	Due after 3 years but within 4 years	Due after 4 years but within 5 years
Long-term loans	¥ 72	¥12,050	¥ 33	¥ 15
Lease liabilities	305	245	198	150

(Thousands of U.S. dollars)

Category	Due after 1 year but within 2 years	Due after 2 years but within 3 years	Due after 3 years but within 4 years	Due after 4 years but within 5 years
Long-term loans	\$ 620	\$103,879	\$ 284	\$ 129
Lease liabilities	2,629	2,112	1,706	1,293

Supplementary schedule of asset retirement obligations

The schedule of asset retirement obligations is omitted since the amount of asset retirement obligations is not more than one hundredth of total liabilities and net assets as of January 1, 2016 and December 31, 2016.

Other**Quarterly information in Fiscal 2016**

(Millions of yen)

Accumulated	First quarter From January 1 to March 31, 2016	Second quarter From January 1 to June 30, 2016	Third quarter From January 1 to September 30, 2016	Fiscal 2016
Net sales.....	¥120,710	¥244,099	¥360,787	¥485,192
Income (loss) before income taxes	18,423	33,681	51,682	60,512
Net income (loss) attributable to owners of the parent	11,924	22,376	34,352	40,400
Net income (loss) per share (Yen)	33.95	63.70	97.78	114.98

Quarterly	First quarter From January 1 to March 31, 2016	Second quarter From April 1 to June 30, 2016	Third quarter From July 1 to September 30, 2016	Fourth quarter From October 1 to December 31, 2016
Net income (loss) per share (Yen)	33.95	29.75	34.08	17.21

(Thousands of U.S. dollars)

Accumulated	First quarter From January 1 to March 31, 2016	Second quarter From January 1 to June 30, 2016	Third quarter From January 1 to September 30, 2016	Fiscal 2016
Net sales.....	\$1,040,603	\$2,104,301	\$3,110,232	\$4,182,689
Income (loss) before income taxes	158,818	290,353	445,534	521,655
Net income (loss) attributable to owners of the parent	102,793	192,896	296,137	348,275
Net income (loss) per share (Dollars).....	0.29	0.54	0.84	0.99

Quarterly	First quarter From January 1 to March 31, 2016	Second quarter From April 1 to June 30, 2016	Third quarter From July 1 to September 30, 2016	Fourth quarter From October 1 to December 31, 2016
Net income (loss) per share (Dollars)	0.29	0.25	0.29	0.14



Independent Auditor's Report

To the Board of Directors of
Kuraray Co., Ltd.

We have audited the accompanying consolidated financial statements of Kuraray Co., Ltd. ("the Company") and its consolidated subsidiaries, which comprise the consolidated balance sheet as at December 31, 2016, and the consolidated statement of income, consolidated statement of comprehensive income, consolidated statement of changes in net assets and consolidated statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, while the purpose of the financial statement audit is not to express an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

*PricewaterhouseCoopers Aarata LLC
Sumitomo Fudosan Shiodome Hamarikyū Bldg., 8-21-1 Ginza, Chuo-ku, Tokyo 104-0061, Japan
T: +81 (3) 3546 8450, F: +81 (3) 3546 8451, www.pwc.com/jp/assurance*



To the Board of Directors of
Kuraray Co., Ltd.
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Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company and its consolidated subsidiaries as at December 31, 2016, and their financial performance and cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

Convenience translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended December 31, 2016 are presented solely for convenience. Our audit also included the translation of Japanese yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 1 to the consolidated financial statements.

PricewaterhouseCoopers Arata LLC

April 24, 2017

Main Group Companies

(As of December 31, 2016)

Company	Head office	Capital (¥ million)	Activities
JAPAN¹			
Kuraray Trading Co., Ltd.	Osaka	¥2,200	Import, export, manufacture, and sales of textile products, chemicals, etc.
Kuraray Chemical Co., Ltd. ²	Osaka	600	Manufacture and sales of activated carbon and related products
Kuraray Engineering Co., Ltd.	Osaka	150	Plant design and construction
Kuraray Noritake Dental Inc.	Tokyo	300	Manufacture and sales of dental materials and medical-related products
Kuraray Plastics Co., Ltd.	Osaka	180	Manufacture and sales of plastics
Kurarayliving Co., Ltd.	Osaka	101	Manufacture and sales of packaging materials
Kuraray Techno Co., Ltd.	Osaka	100	Production subcontracting, Temporary personnel service
Kuraray Kuraflex Co., Ltd.	Osaka	100	Manufacture and sales of non-woven fabric products
Kuraray Fastening Co., Ltd.	Osaka	100	Manufacture and sales of <i>MAGIC TAPE</i>

OVERSEAS¹

Kuraray America, Inc.	Texas, U.S.A.	US\$10.1 million	Import, export and sales of textile products, resins and chemical products. Manufacture and sales of PVA resins, PVB resins and film, <i>EVAL</i> resins and <i>SEPTON</i> .
MonoSol, LLC	Indiana, U.S.A.	US\$59.0 million	Manufacture and sales of PVA film
Kuraray South America Ltda.	São Paulo, Brazil	R\$48.2 million	Market development and sales promotion of Kuraray Group products in South America
Kuraray Europe GmbH	Frankfurt, Germany	€31.1 million	Import and sales of Kuraray products in Europe, Manufacture and sales of PVA and PVB resins and PVB film
EVAL Europe N.V.	Antwerp, Belgium	€29.7 million	Manufacture and sales of <i>EVAL</i> resins in Europe
Kuraray China Co., Ltd.	Shanghai, China	US\$3.0 million	Business expansion, market entry planning and other supplemental activities
Kuraray (Shanghai) Co., Ltd.	Shanghai, China	US\$8.0 million	Import and sales of Kuraray products in China
Kuraray Hong Kong Co., Ltd.	Hong Kong, China	HK\$4.6 million	Processing and sales of Kuraray products in China and Southeast Asia
Kuraray Asia Pacific Pte. Ltd.	Singapore	US\$29.7 million	Manufacture and sales of PVA resins
Kuraray India Private Limited	Delhi, India	Rupees 272 million	Import and sales of Kuraray products in India and market development
Kuraray (Thailand) Co., Ltd.	Bangkok, Thailand	THB8.0 million	Sales and market development of Kuraray products in Thailand
Kuraray Korea Ltd.	Ulsan, Korea	KWR662 million	Manufacture and sales of PVB film
Plantic Technologies Limited	Victoria, Australia	AU\$131.5 million	Manufacture and sales of biomass-derived <i>PLANTIC</i> film

Notes: 1. Kuraray Co., Ltd. has 24 affiliated companies in Japan and 44 overseas.

2. On January 1, 2017, Kuraray Co., Ltd. absorbed Kuraray Chemical Co., Ltd., which had previously been a consolidated subsidiary.

Investor Information

(As of December 31, 2016)

KURARAY CO., LTD.

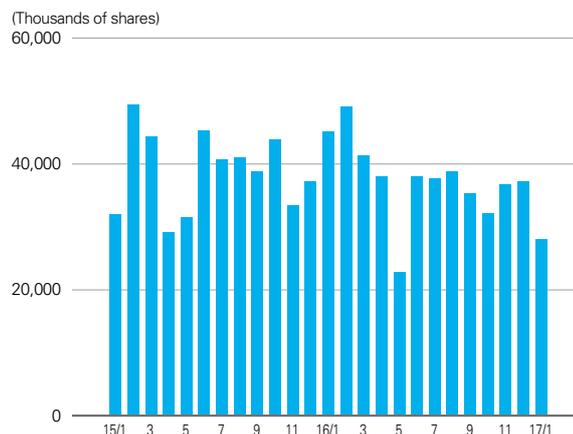
Established:	June 24, 1926
Capital:	¥88,955 million
Shares Authorized:	1,000,000,000 shares
Issued:	354,863,603 shares
Number of Shareholders:	41,848
Head Offices:	Tokyo, Osaka

Share Price Movement

Share prices according to the market price on the Tokyo Stock Exchange (left scale)



Trading Volume



Shareholder Register Agent for Common Stock

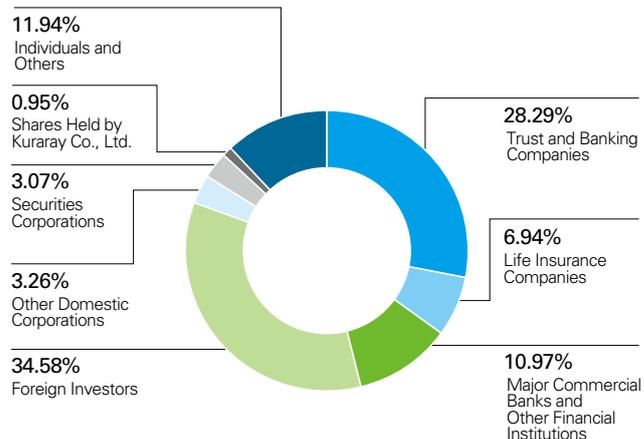
Sumitomo Mitsui Trust Bank, Limited
Stock Transfer Agency Business Planning Department
1-4-1, Marunouchi, Chiyoda-ku, Tokyo 100-8223, Japan

Principal Shareholders

Name or Company Name	Number of Shares Held (thousands)	Percentage of Shares Held
The Master Trust Bank of Japan, Ltd. -Trust Account-	29,120	8.29%
Japan Trustee Services Bank, Ltd. -Trust Account-	19,555	5.56%
Nippon Life Insurance Company	10,448	2.97%
National Mutual Insurance Federation of Agricultural Cooperatives	10,102	2.87%
TRUST & CUSTODY SERVICES BANK, LTD -Trust Collateral Acc.-	7,280	2.07%
Meiji Yasuda Life Insurance Company	5,969	1.70%
NOTHERN TRUST CO. (AVFC) RE - SSD00	5,907	1.68%
STATE STREET BANK AND TRUST COMPANY 505001	5,738	1.63%
STATE STREET BANK WEST CLIENT -TREATY 505234	5,211	1.48%
Japan Trustee Services Bank, Ltd. -Trust Account7-	4,917	1.40%

Note: Although the Company owns 3,363,405 shares of treasury stock, it is excluded from the major shareholders listed above.

Breakdown of Issued Shares by Type of Shareholder



KURARAY CO., LTD.

TOKYO HEAD OFFICE

Ote Center Bldg., 1-1-3, Otemachi,
Chiyoda-ku, Tokyo 100-8115, Japan
tel. +81-3-6701-1000 fax. +81-3-6701-1005

OSAKA HEAD OFFICE

Umeda Hankyu Building Office Tower, 8-1,
Kakudacho, Kita-ku, Osaka 530-8611, Japan
tel. +81-6-7635-1000 fax. +81-6-7635-1005